LT-32X575/KA, LT-32X585/KA

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the \(\triangle \) symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal : Colour bar signal

(2) Setting positions of each knob/button and

variable resistor : Original setting position

when shipped

(3)Internal resistance of tester : DC 20kΩ/V

(4)Oscilloscope sweeping time : H ⇒ 20µs / div

: V ⇒ 5ms / div

: Othters \Rightarrow Sweeping time is

specified

(5) Voltage values : All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

• In the PW board : R1209 \rightarrow R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM (1)Resistors

Resistance value

 $\begin{array}{lll} \text{No unit} & : [\Omega] \\ \text{K} & : [k\Omega] \\ \text{M} & : [\text{M}\Omega] \\ \end{array}$

Rated allowable power

No indication : 1/16 [W]
Others : As specified

Type

No indication : Carbon resistor

OMR : Oxide metal film resistor

MFR : Metal film resistor

MPR : Metal plate resistor

UNFR : Uninflammable resistor

FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

Capacitance value

 $\begin{array}{ll} \mbox{1 or higher} & : [pF] \\ \mbox{less than 1} & : [\mu F] \end{array}$

Withstand voltage

No indication : DC50[V]

Others : DC withstand voltage [V]
AC indicated : AC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

Type

No indication : Ceramic capacitor

MM : Metalized mylar capacitor

PP : Polypropylene capacitor

MPP : Metalized polypropylene capacitor

MF : Metalized film capacitor
TF : Thin film capacitor
BP : Bipolar electrolytic capacitor
TAN : Tantalum capacitor

(3)Coils

No unit : [µH]

Others : As specified

(4)Power Supply

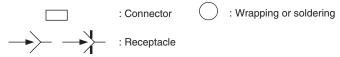


*Respective voltage values are indicated

(5)Test point



(6)Connecting method



(7)Ground symbol

: ISOLATED(NEUTRAL) side ground

 $\stackrel{\bot}{\smile}$: EARTH ground $\stackrel{\bot}{\lor}$: DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (\bot) side GND and the ISOLATED(NEUTRAL) : (\beth) side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time.
 If the above precaution is not respected, a fuse or any parts will be broken.
- Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

NOTE

Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

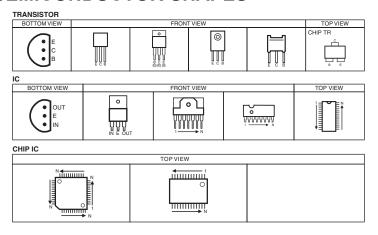
When ordering parts, please use the numbers that appear in the Parts List.

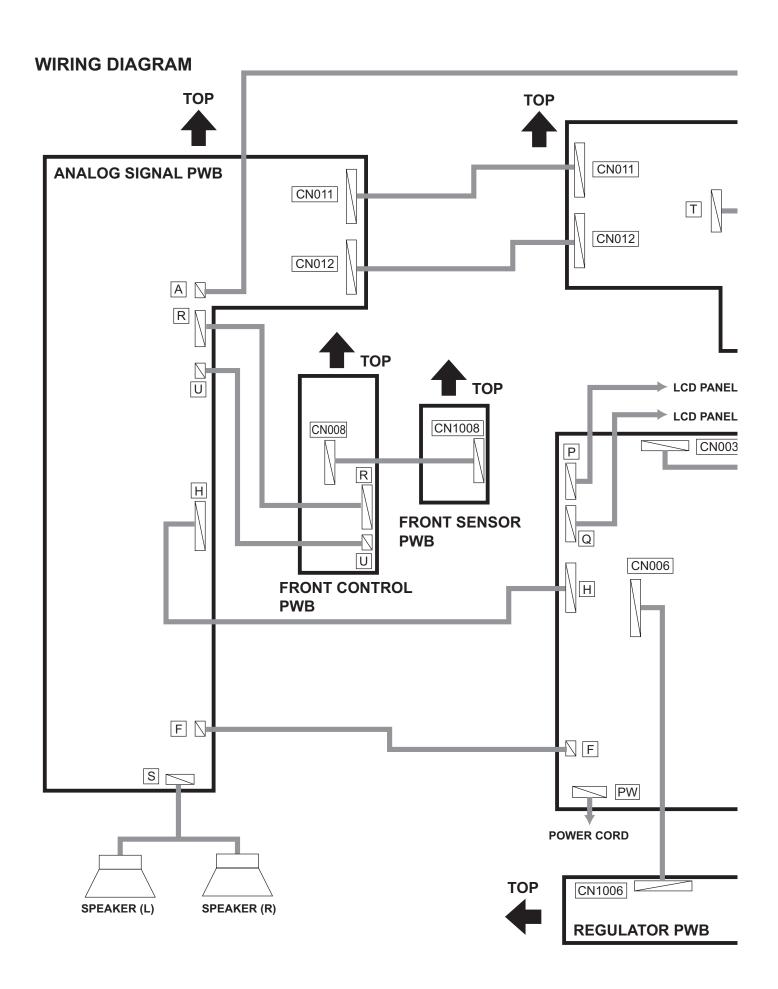
CONTENTS

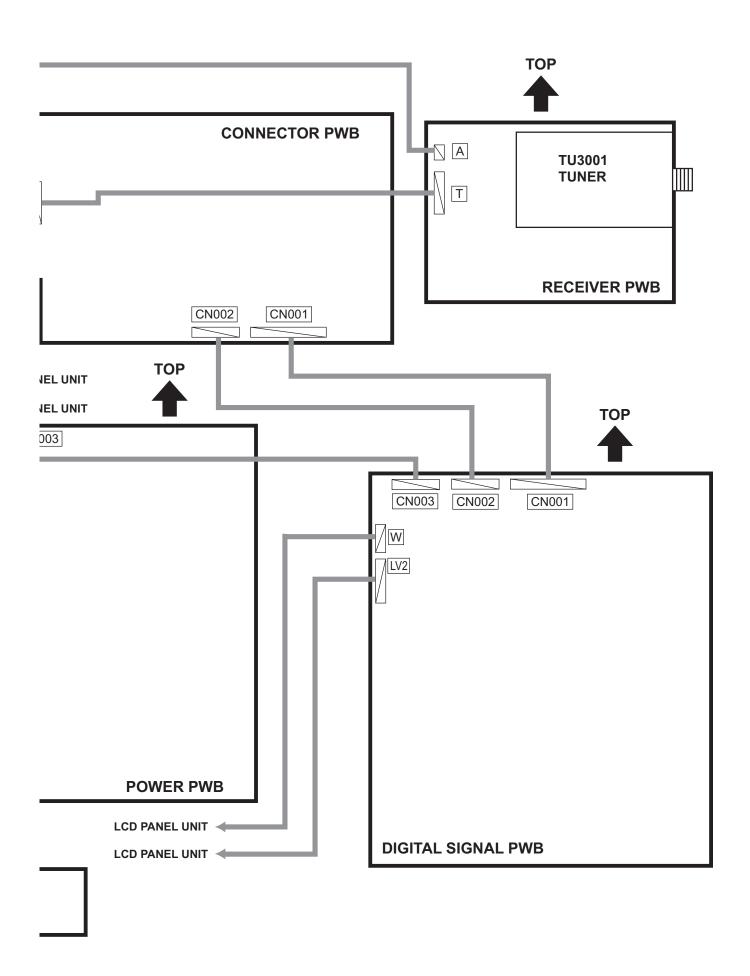
SEMICONDUCTOR SHAPES	2-2
WIRING DIAGRAM	2-3
BLOCK DIAGRAM	
CIRCUIT DIAGRAMS	2-7
RECEIVER PWB CIRCUIT DIAGRAM	
ANALOG SIGNAL PWB CIRCUIT DIAGRAM	
DIGITAL SIGNAL PWB CIRCUIT DIAGRAM	
CONNECTOR PWB CIRCUIT DIAGRAM	
FRONT CONTROL PWB CIRCUIT DIAGRAM	
FRONT SENSOR PWB CIRCUIT DIAGRAM	
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REGULATOR PWB PATTERN	2-53
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POWER PWB PATTERN	
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VOLTAGE CHART	2-71
WAVEFORMS	2-73
CHANNEL CHART (US)	2-74
CHANNEL CHART (CA)	
USING P.W. BOARD	

P.W.B ASS'Y name	LT-32X575/KA	LT-32X585/KA
ANALOG SIGNAL P.W.B	SFL-1012A-M2	←
CONNECTOR P.W.B	SFL-4011A-M2	←
FRONT CONTROL P.W.B	SFL-7011A-M2	←
FRONT SENSOR P.W.B	SFL-8011A-M2	←
POWER P.W.B	SFL-9005A-M2	←
REGURATOR P.W.B	SFL-9105A-M2	←
DIGITAL SIGNAL P.W.B	SFL0D105A-M2	SFL0D104A-M2
RECEIVER P.W.B	SFL0F101A-M2	→

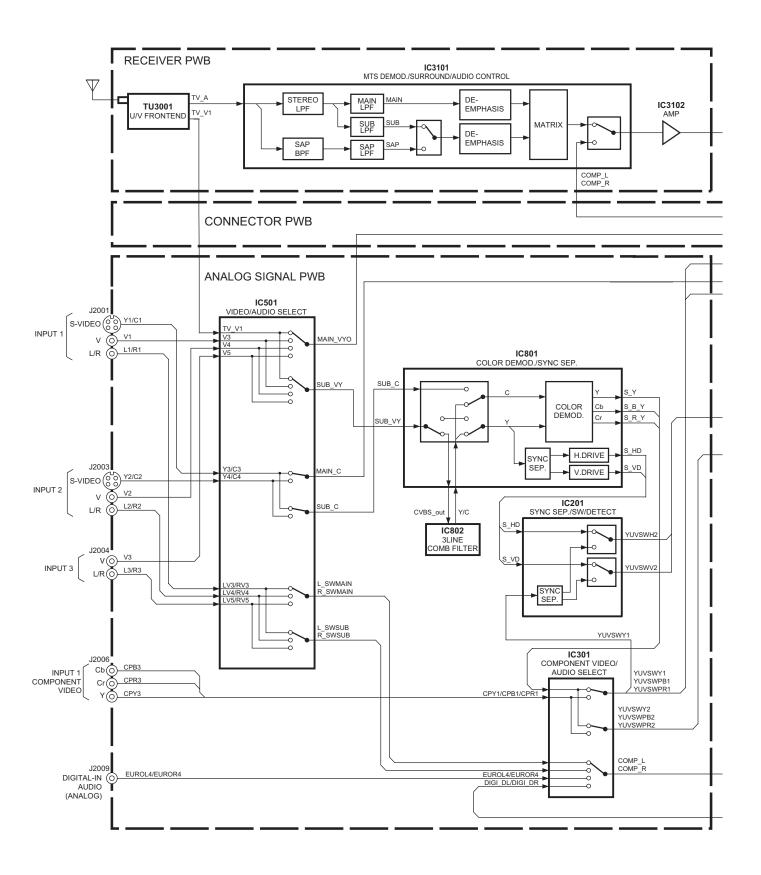
SEMICONDUCTOR SHAPES

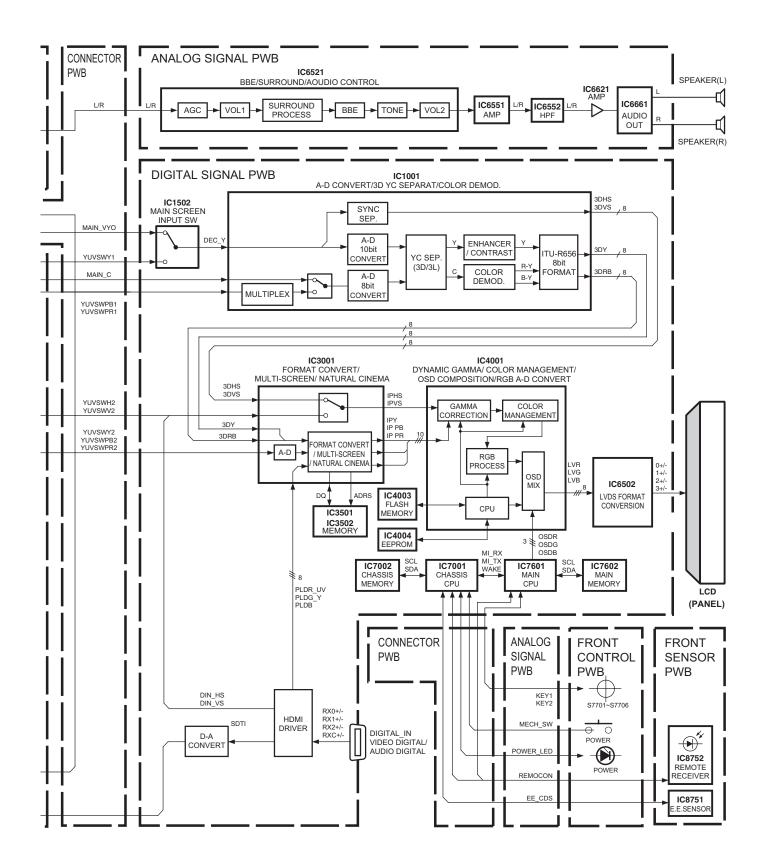


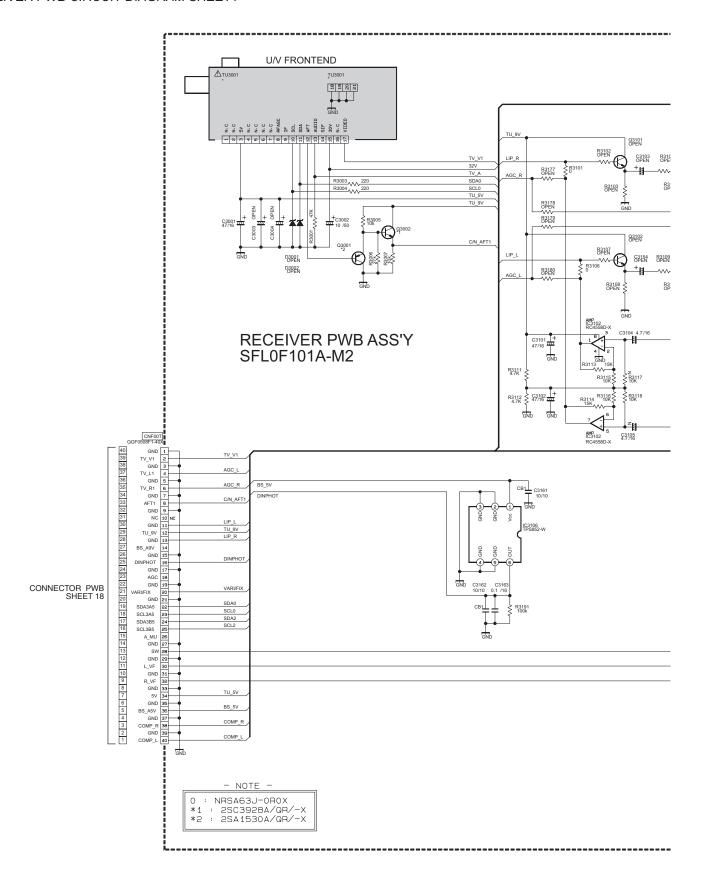


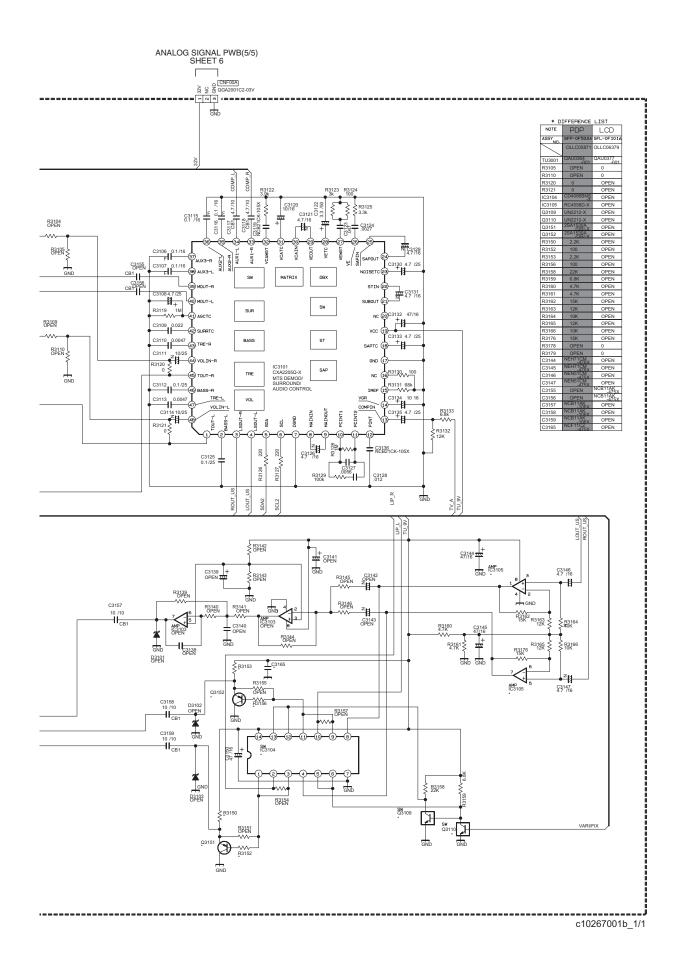


BLOCK DIAGRAM

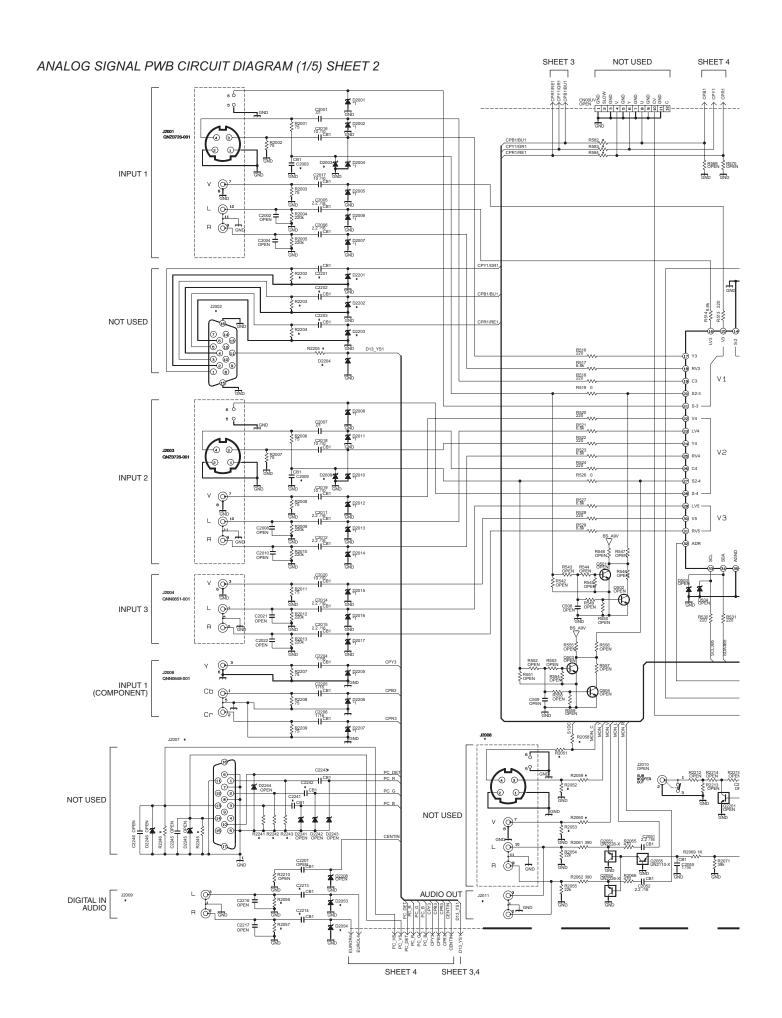


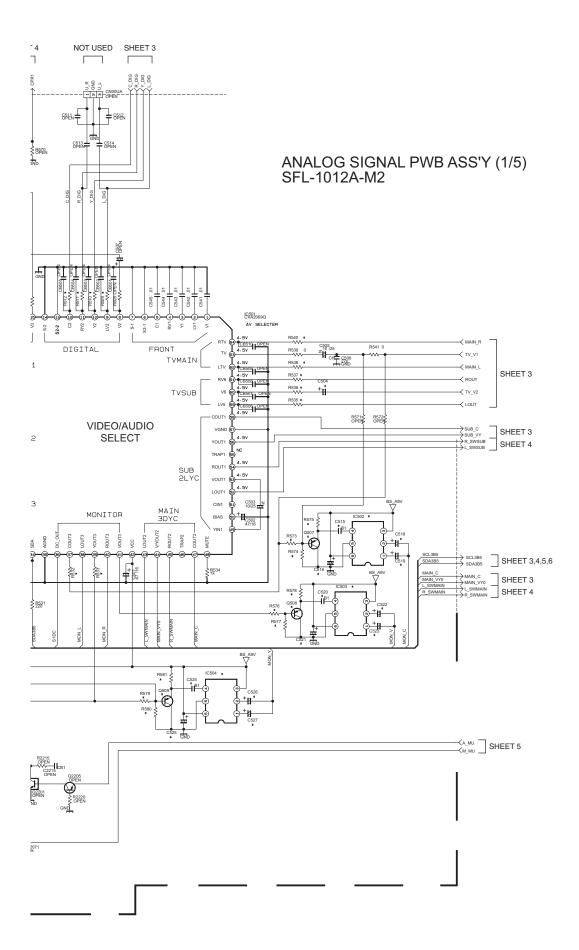




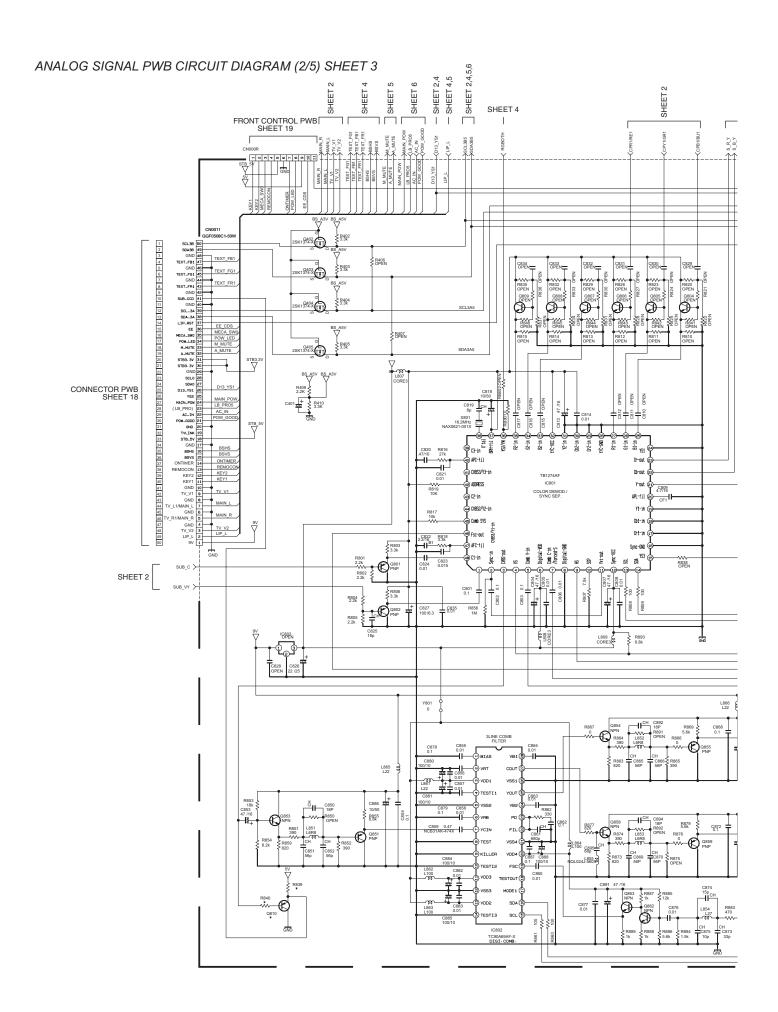


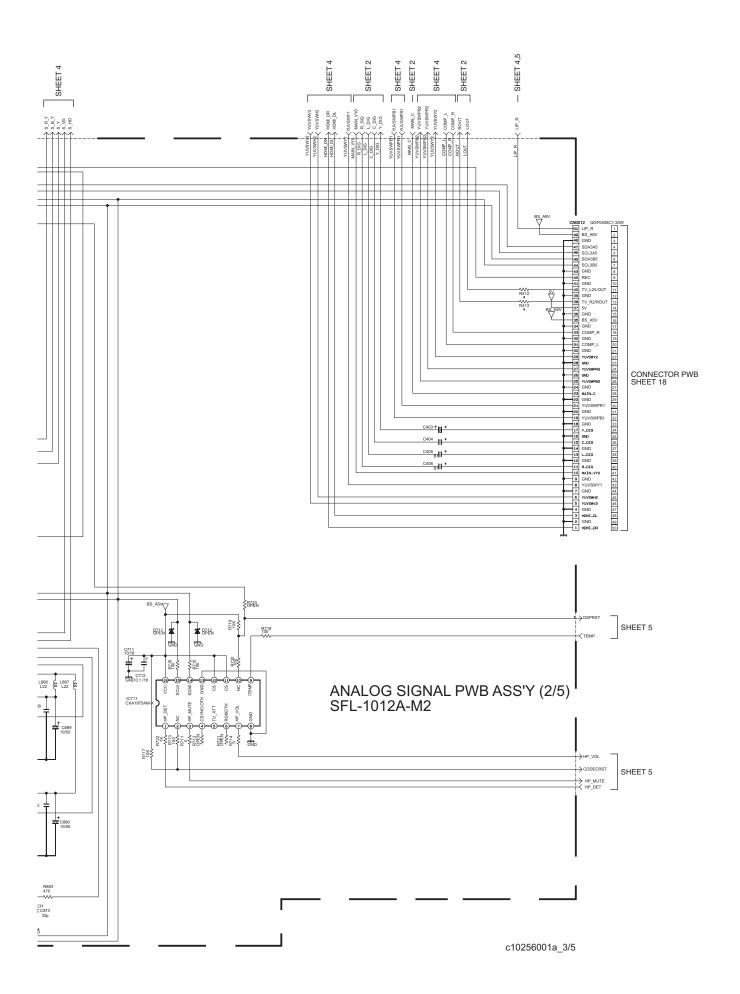
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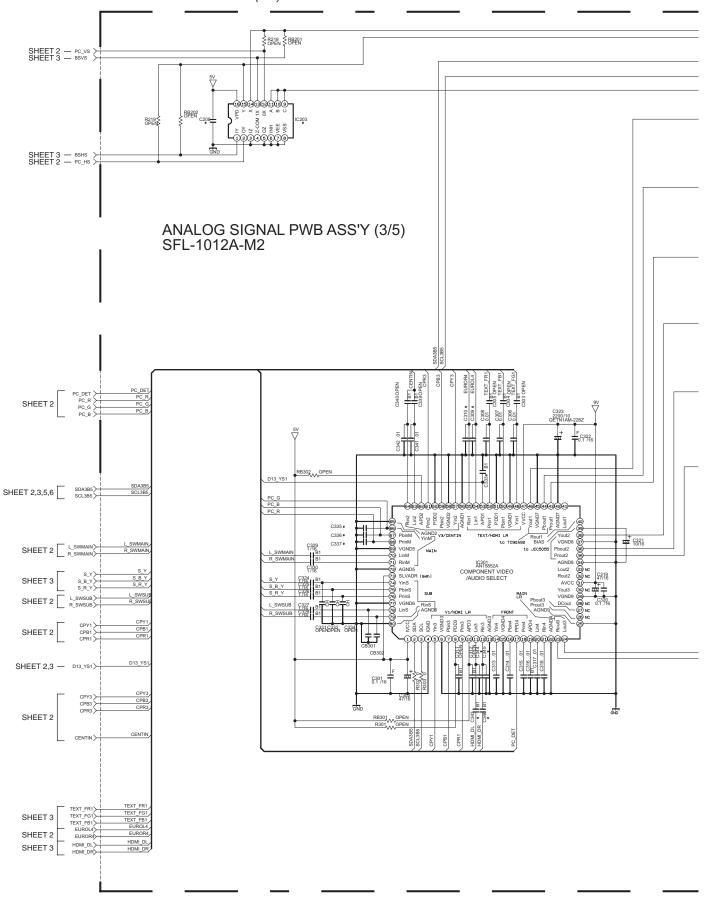


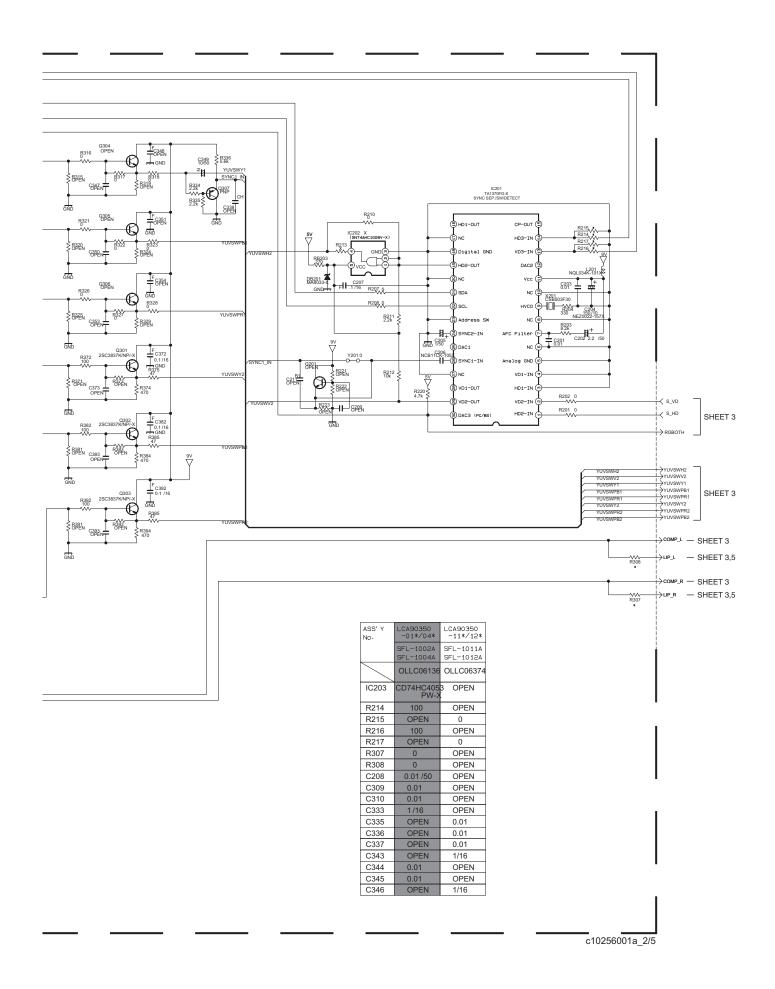


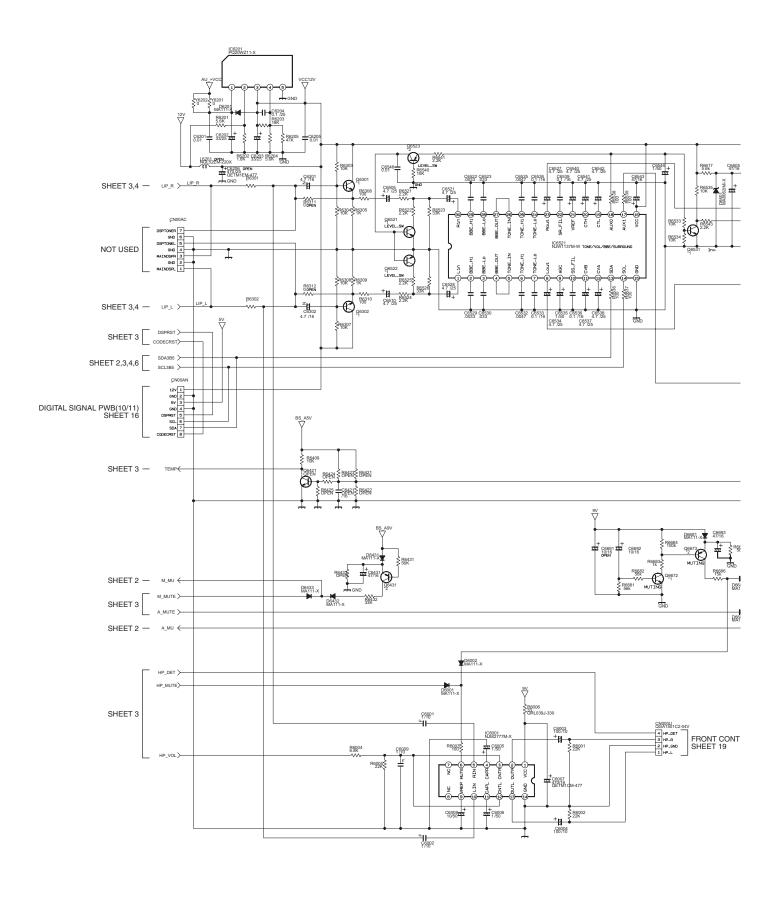
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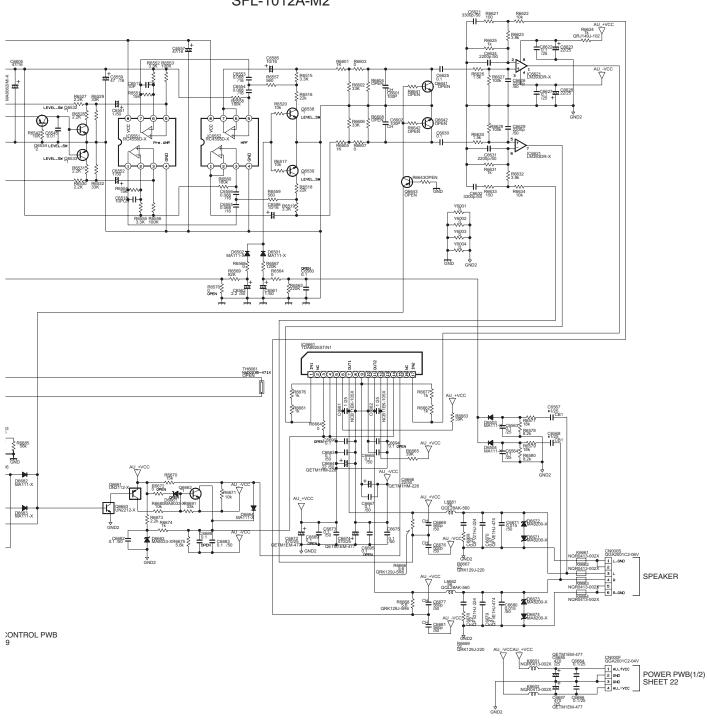




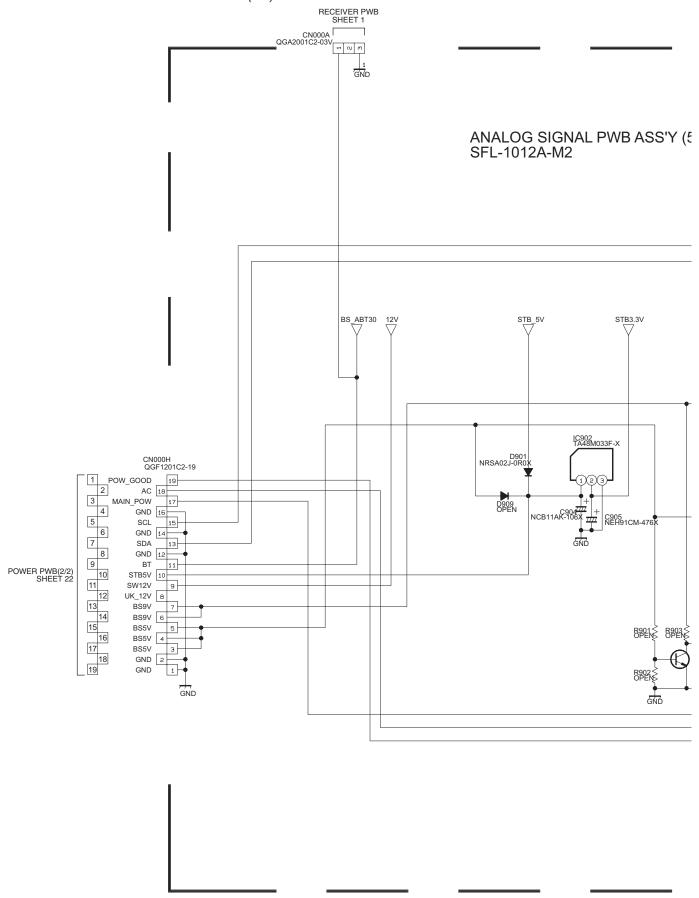


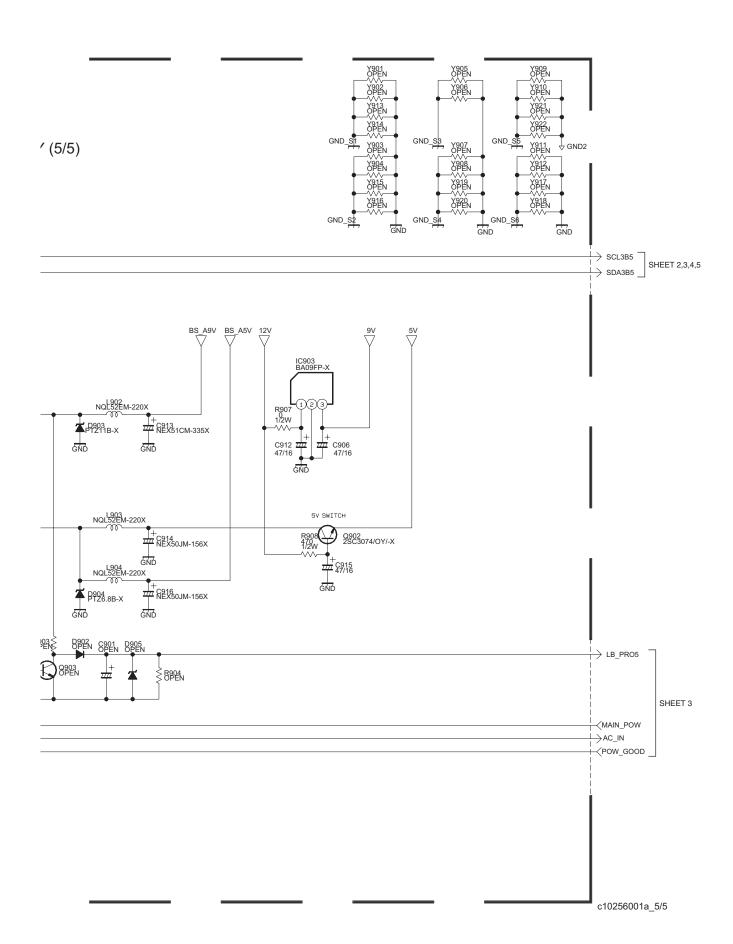


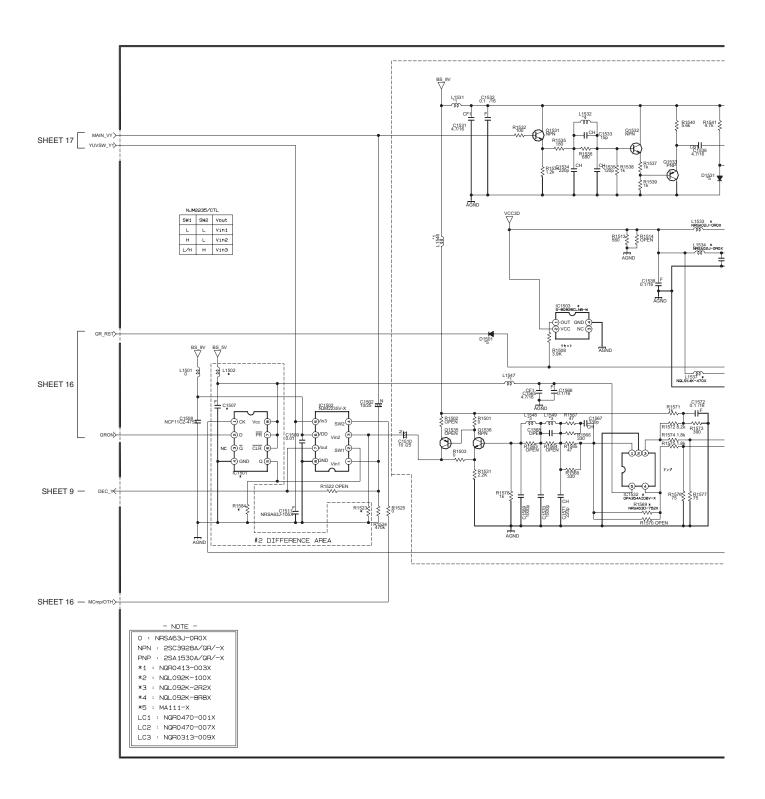
ANALOG SIGNAL PWB ASS'Y (4/5) SFL-1012A-M2



c10256001a_4/5







#2 DIFFERENCE LIST (JPN MODEL/ etc) 8011170 JPN US EU ASIA etc (SOUTH) (SOUTH	#The blank part of a difference list : Refer to circuit block #1 DIFFERENCE LIST
#1 DIFFERENCE AREA JPN MODEL: MOUNT etc: NO MOUNT SFLOD105A-M2 [LT-32X575/KA] SFLOD104A-M2 [LT-32X585/KA]	R1535
ADI	R1567
C1546	D1501 OPEN OPEN OPEN D1531 OPEN OPEN OPEN C1510 OPEN OPEN OPEN C1510 OPEN OPEN OPEN C1531 OPEN OPEN OPEN C1532 OPEN OPEN OPEN C1532 OPEN OPEN OPEN OPEN C1533 OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN
0.71%6 F F F F F F F F F F F F F F F F F F F	C1534 OPEN OPEN OPEN OPEN C1535 OPEN OPEN OPEN OPEN OPEN C1537 OPEN OPEN OPEN OPEN OPEN C1538 OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN

1541 ≤

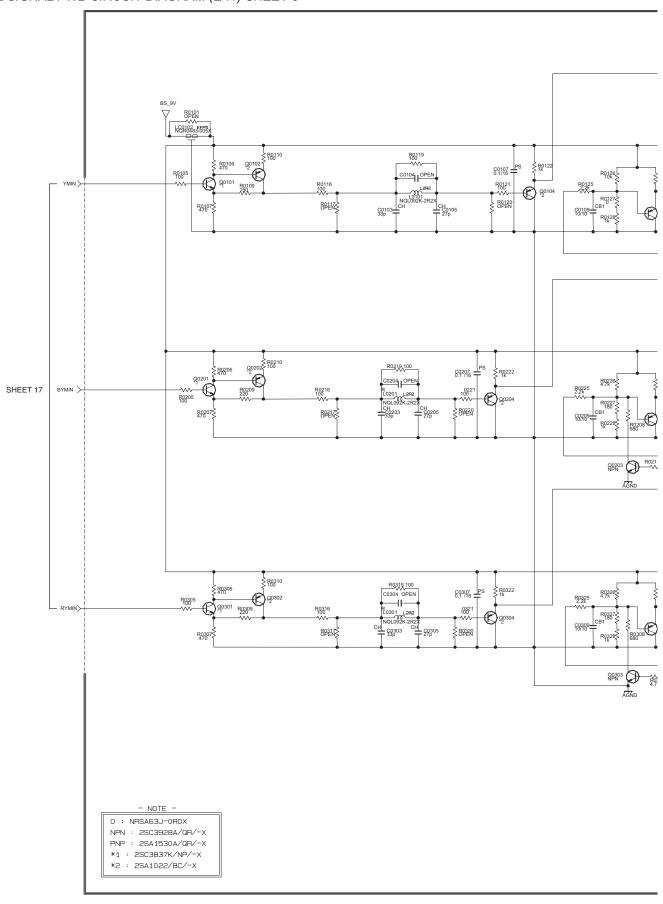
CF1_{C1539}

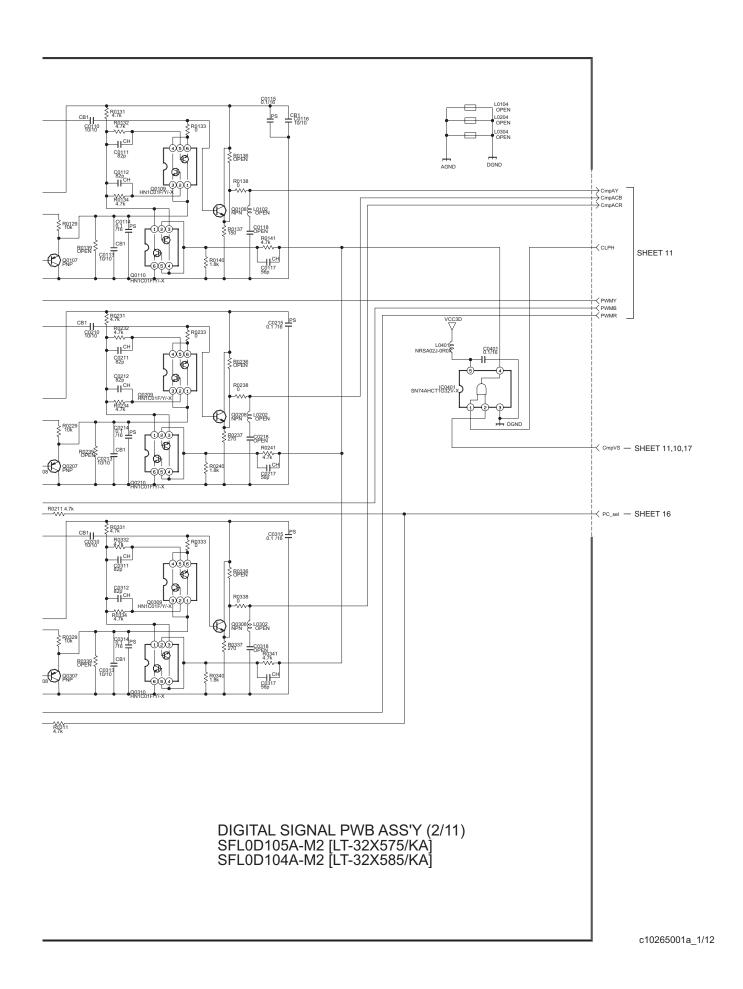
R155310k

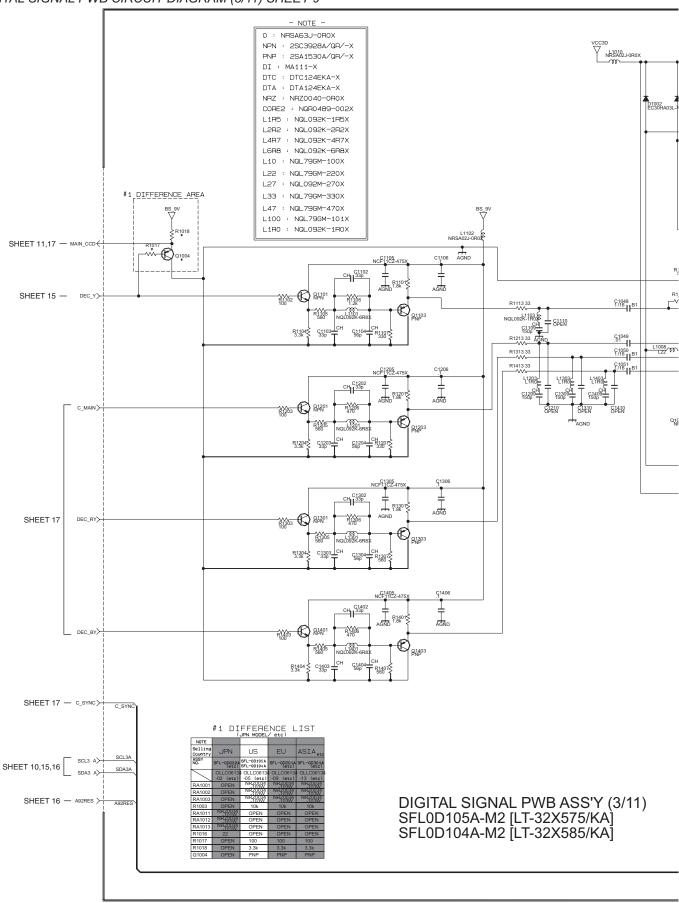
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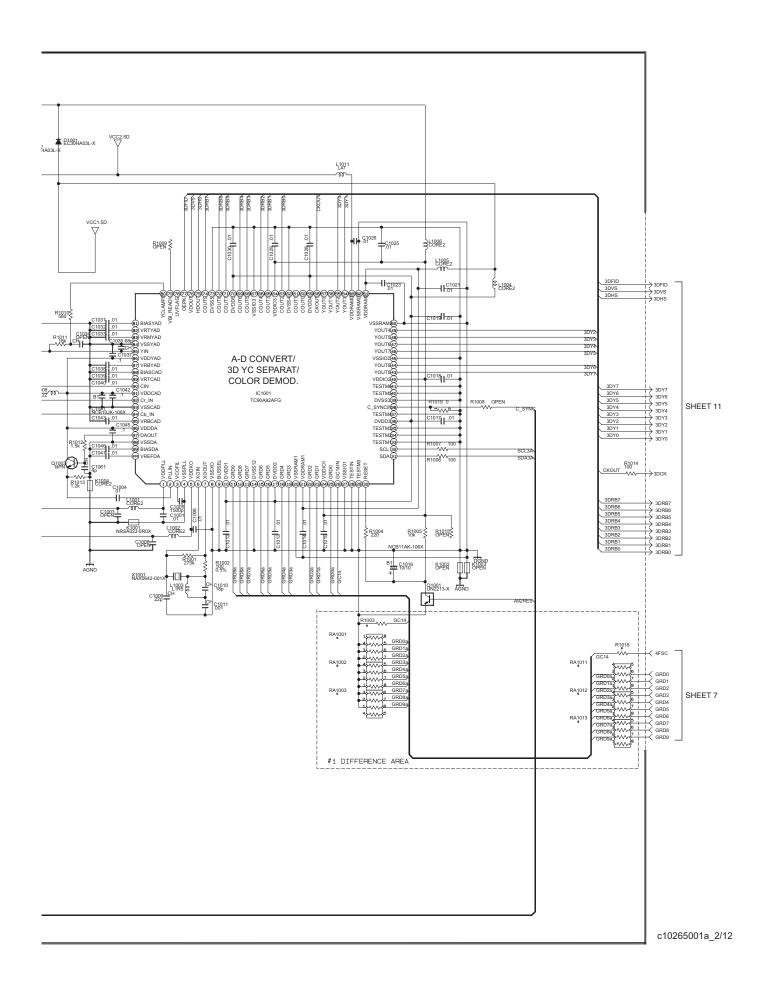
IC1534 * TC7WHU04FU-X

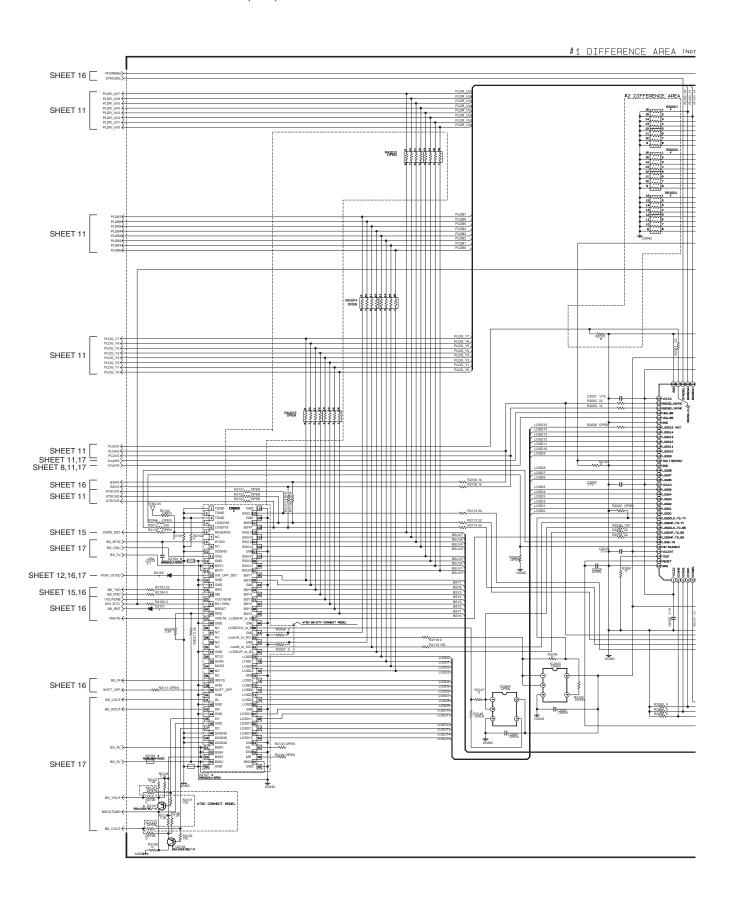
C1562 10p



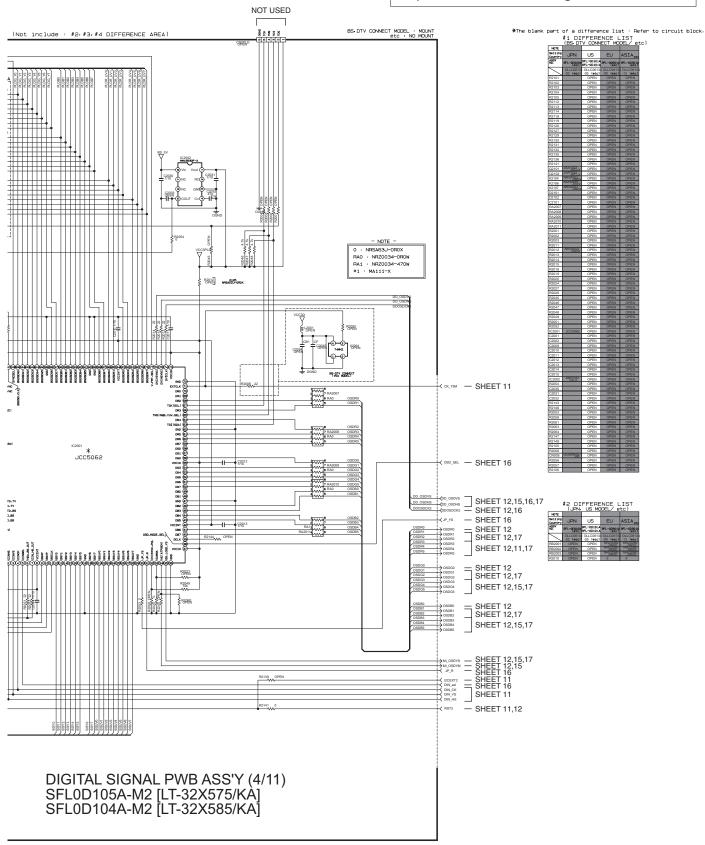




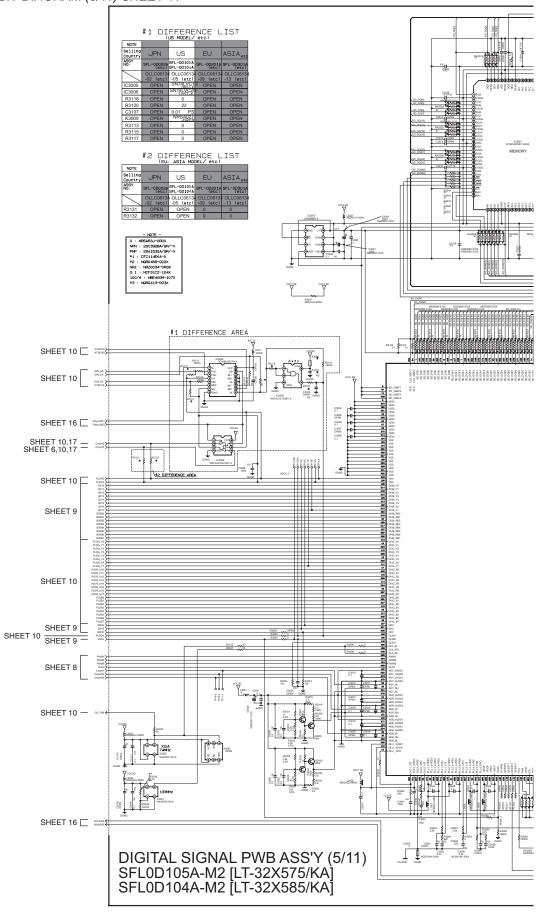


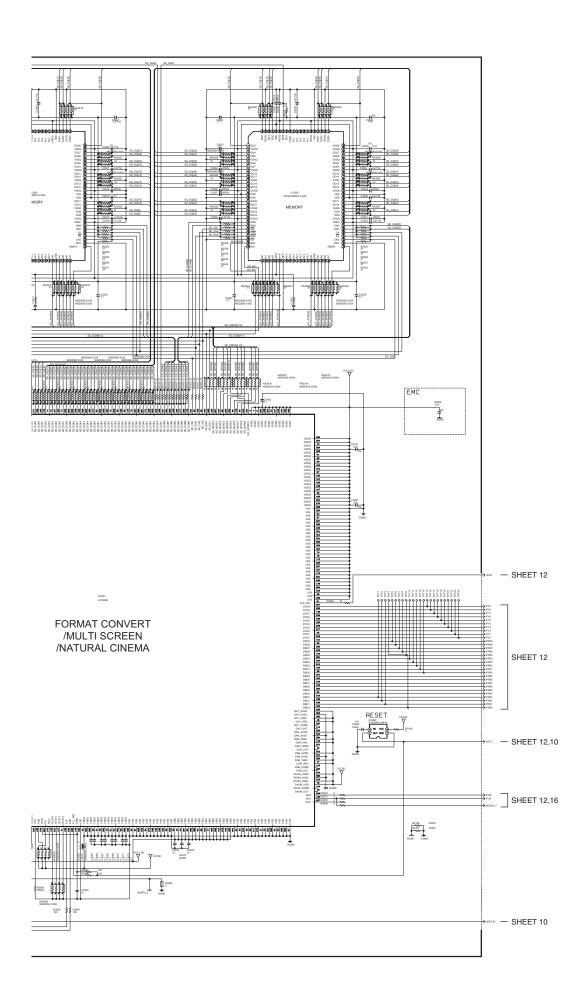


All parts in this circuit diagram are not used.

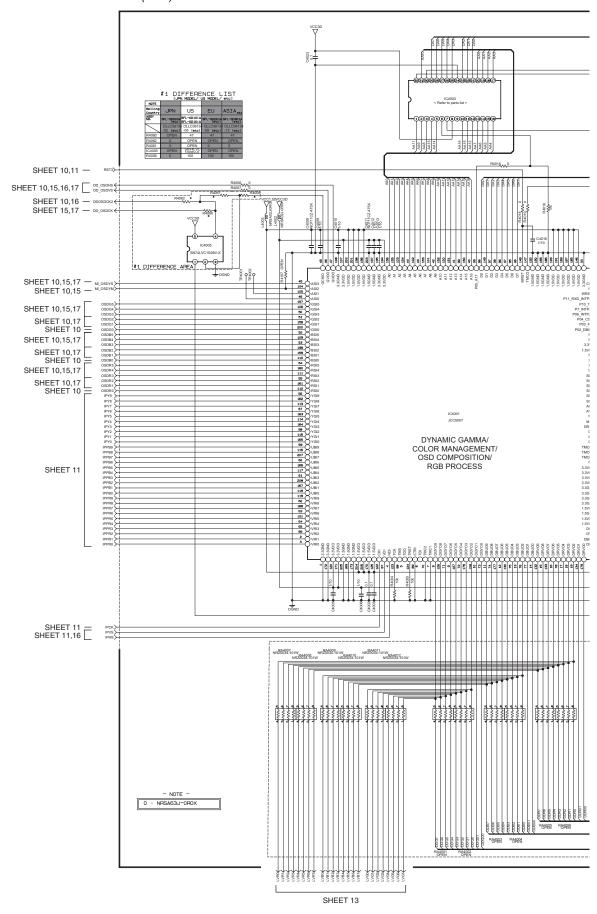


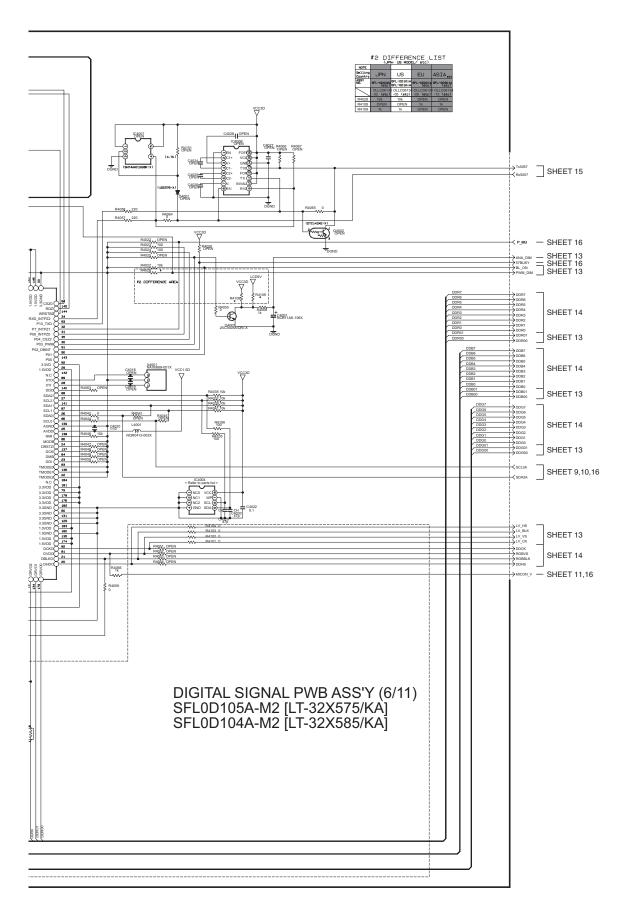
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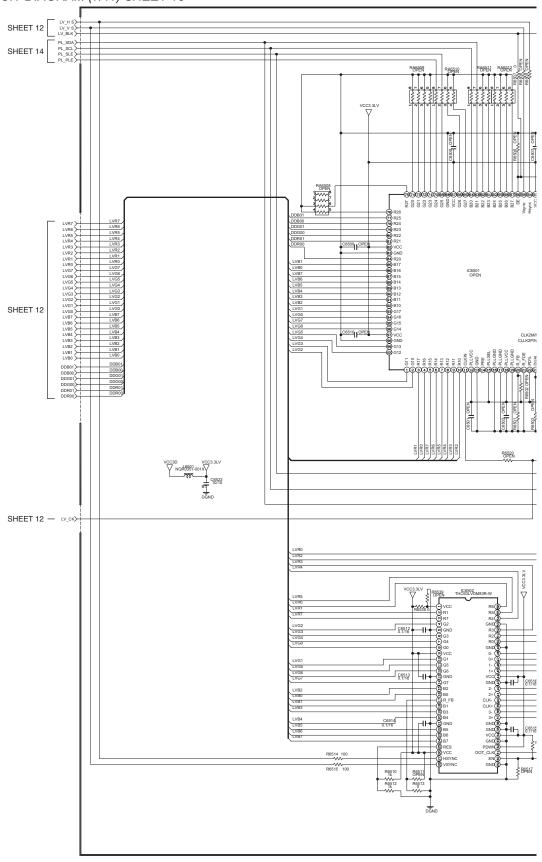


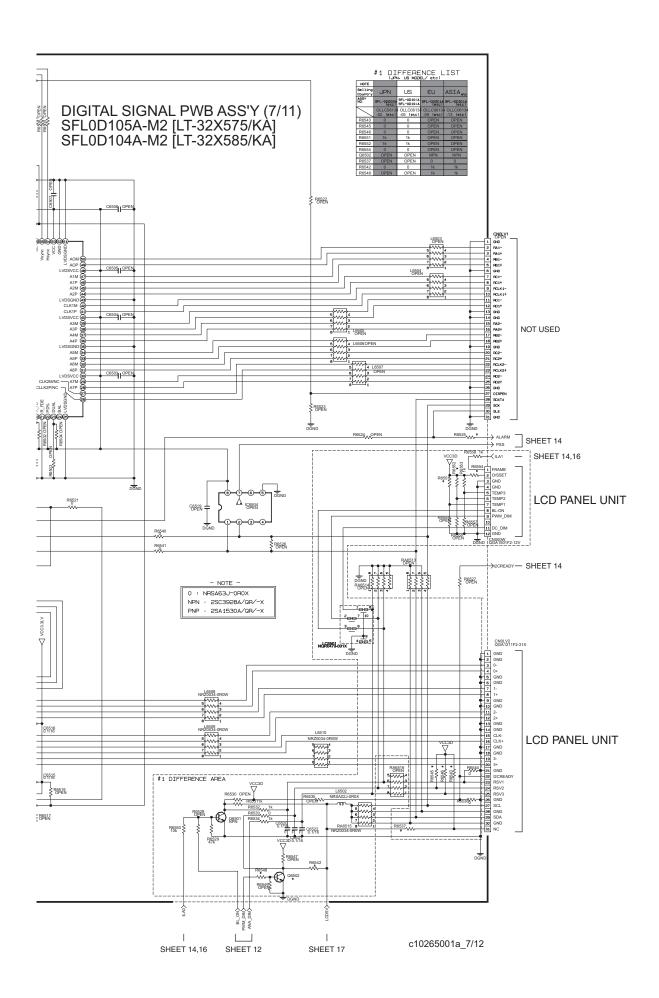
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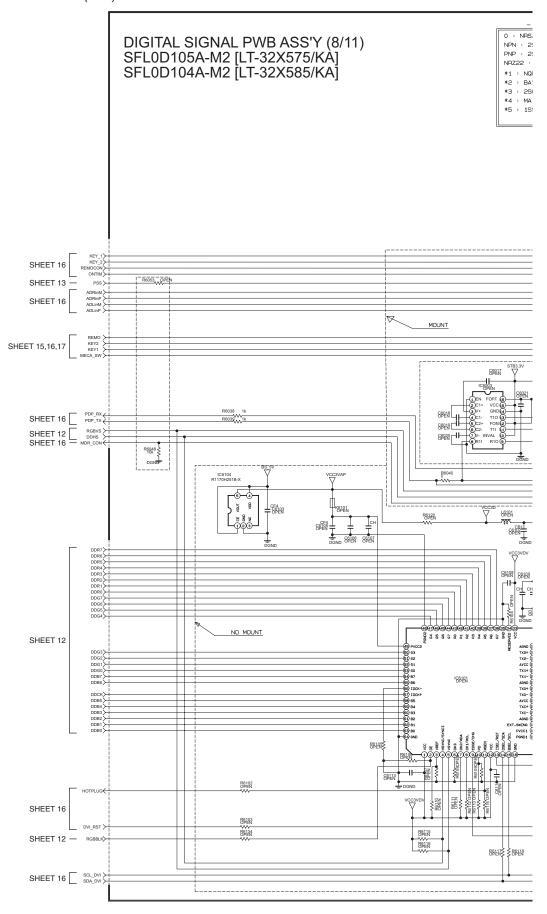


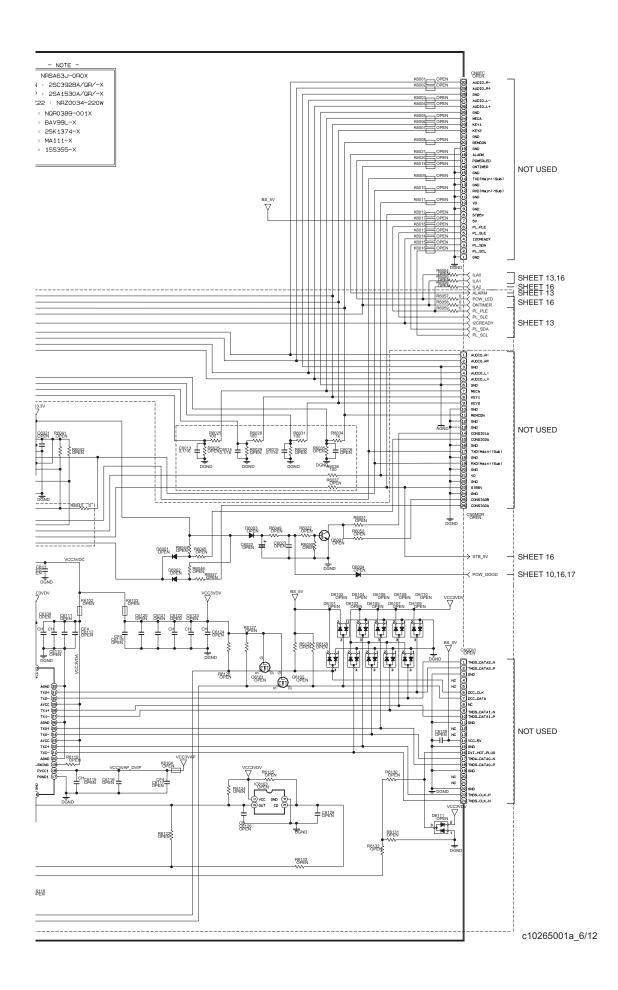


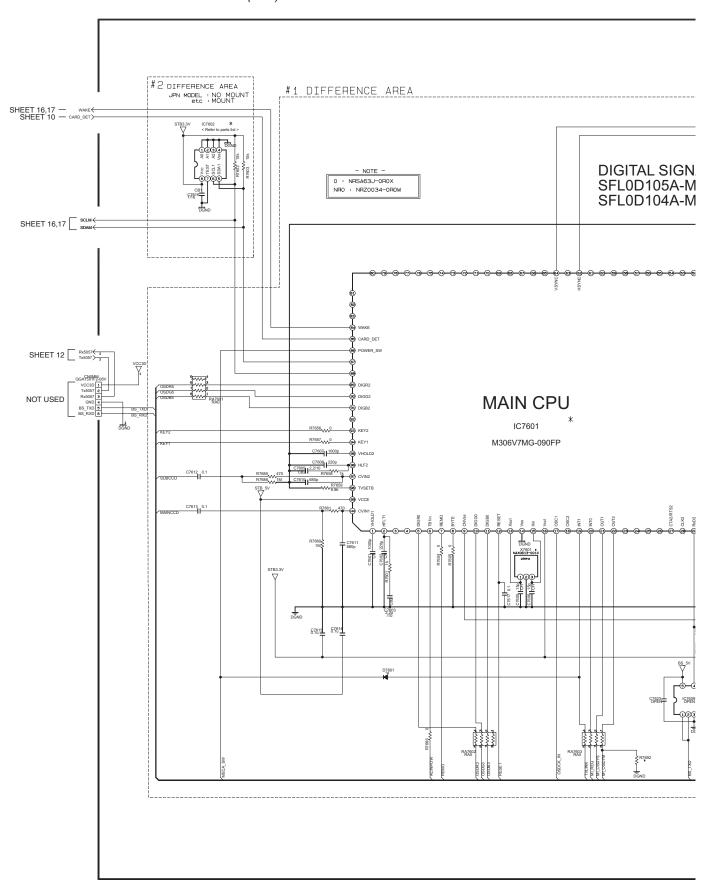
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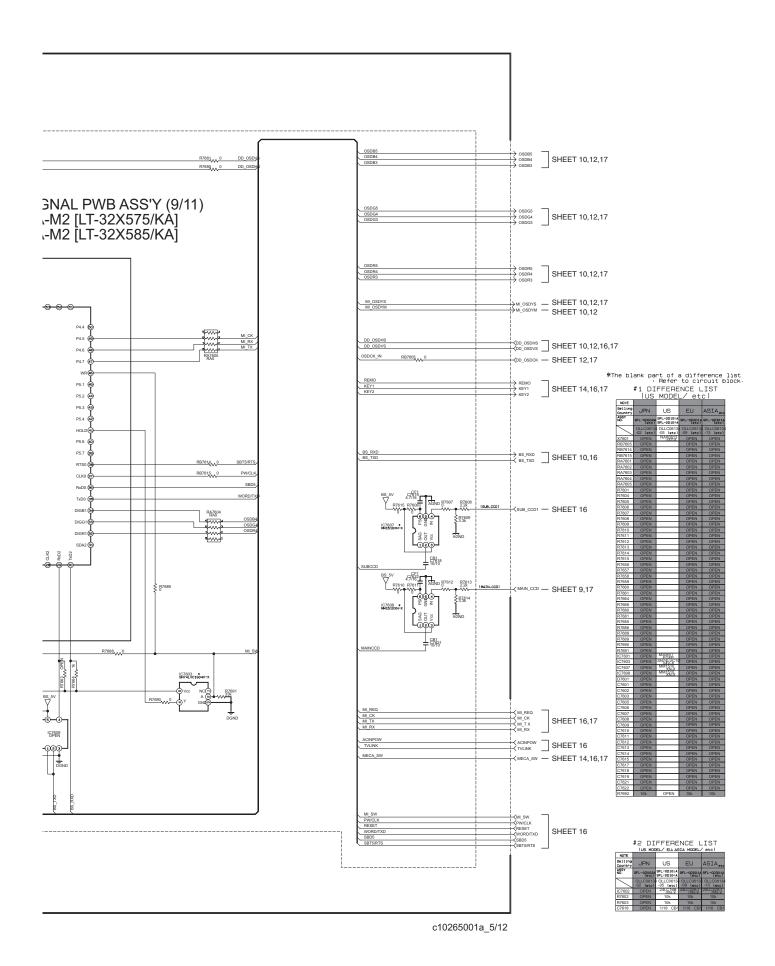


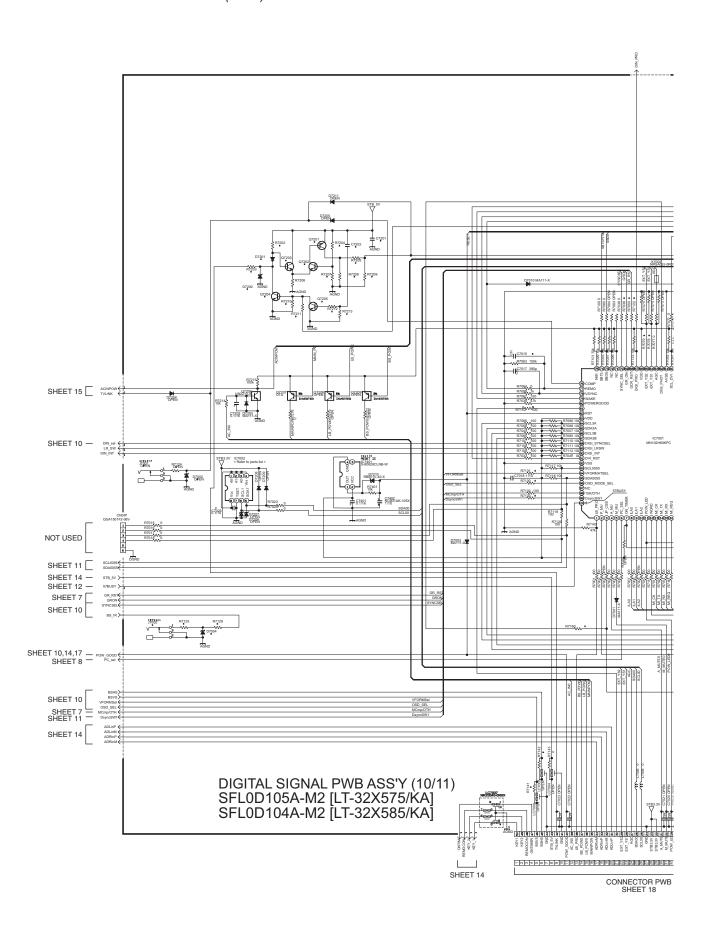


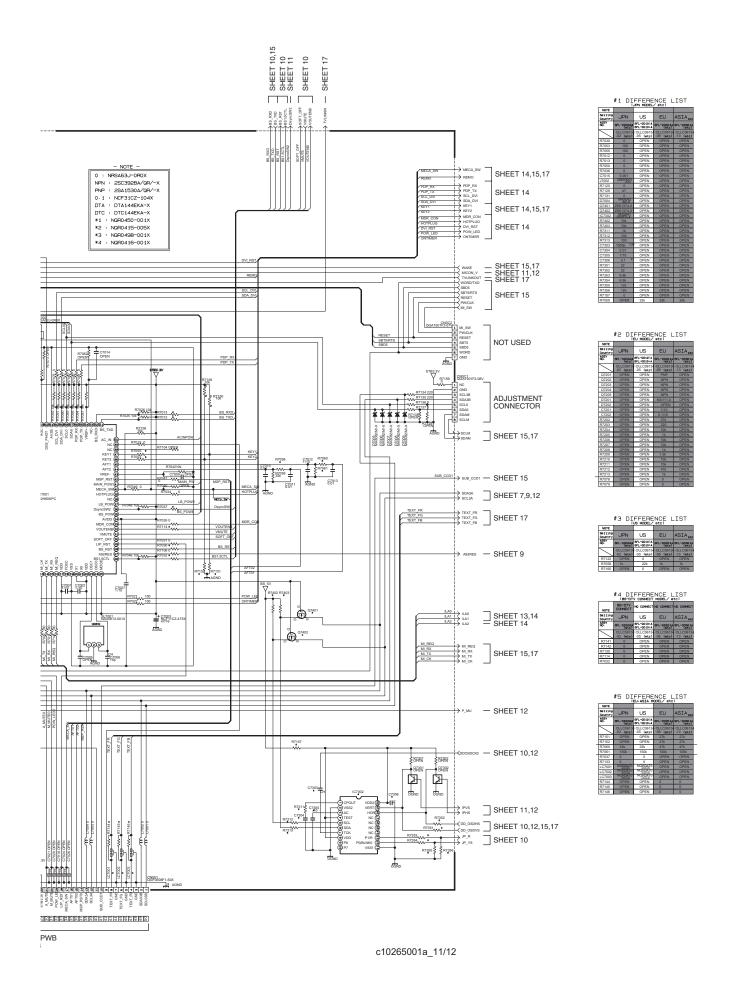


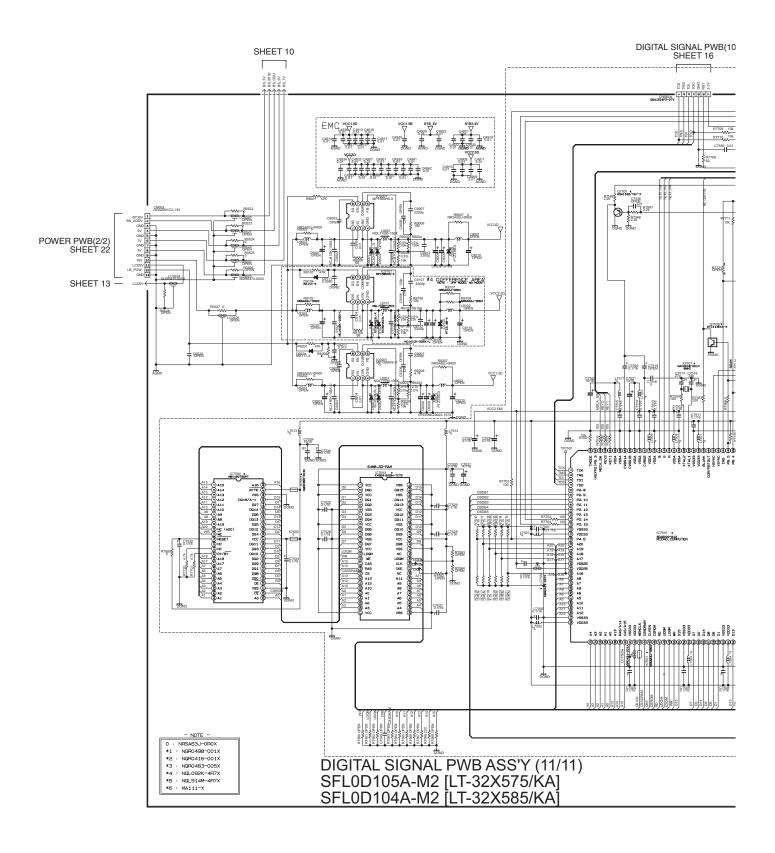


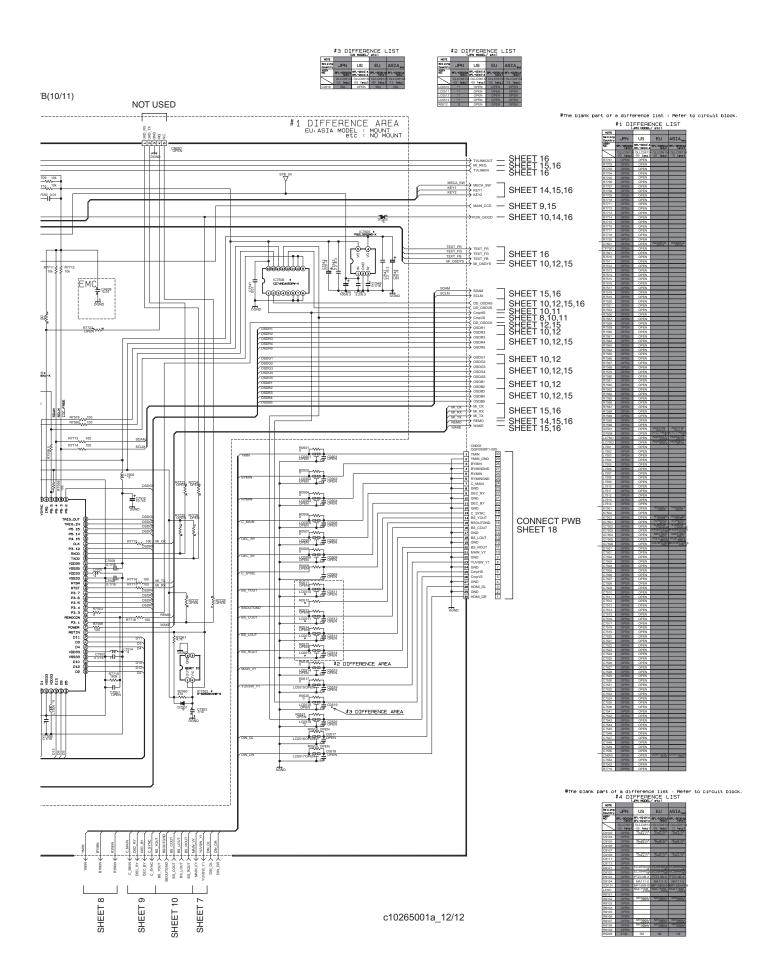


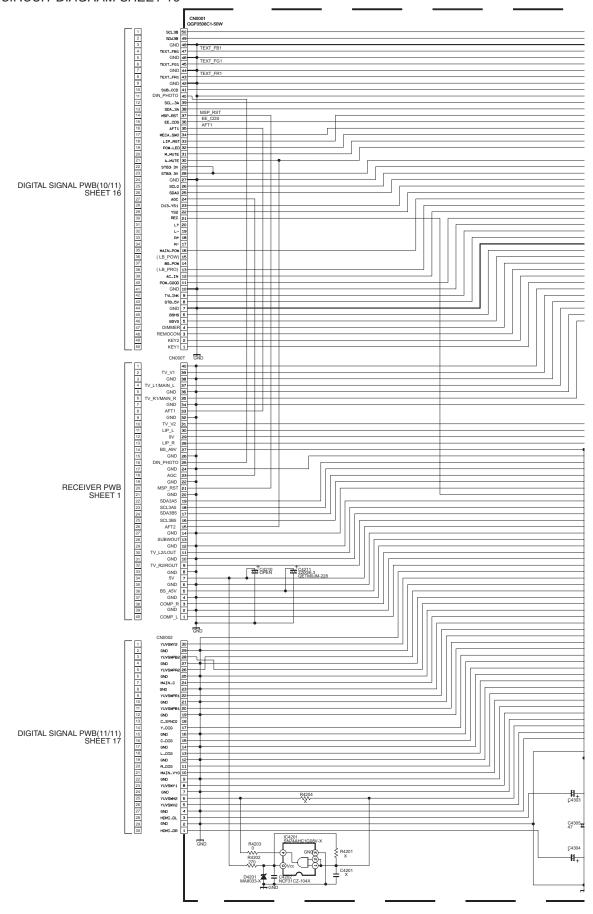


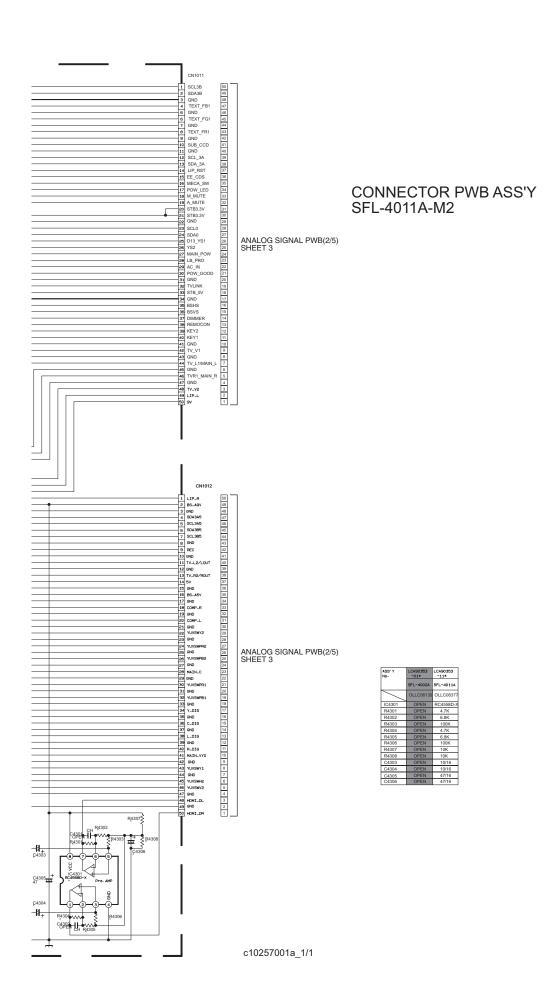


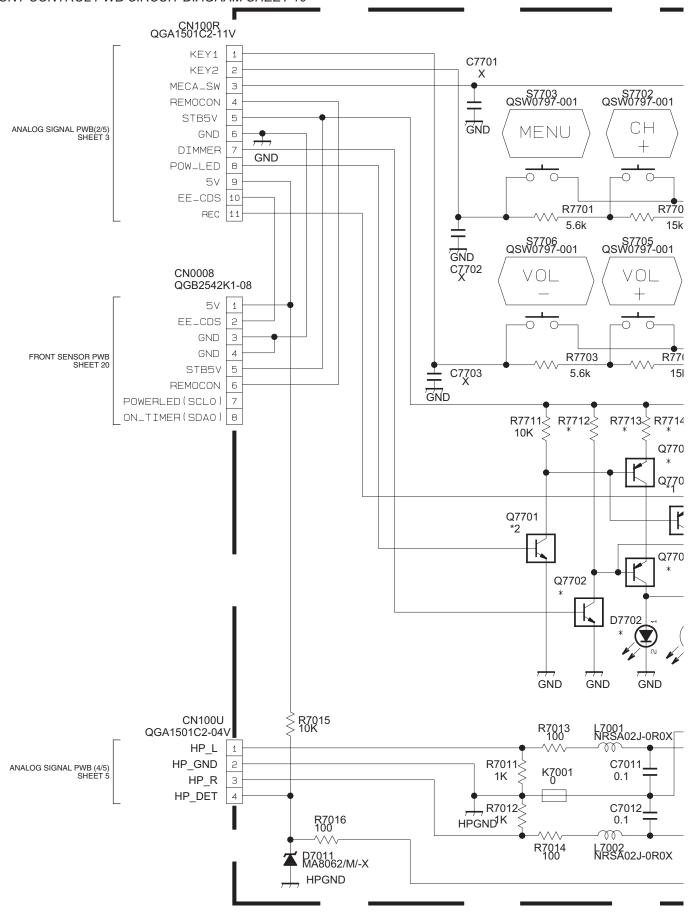


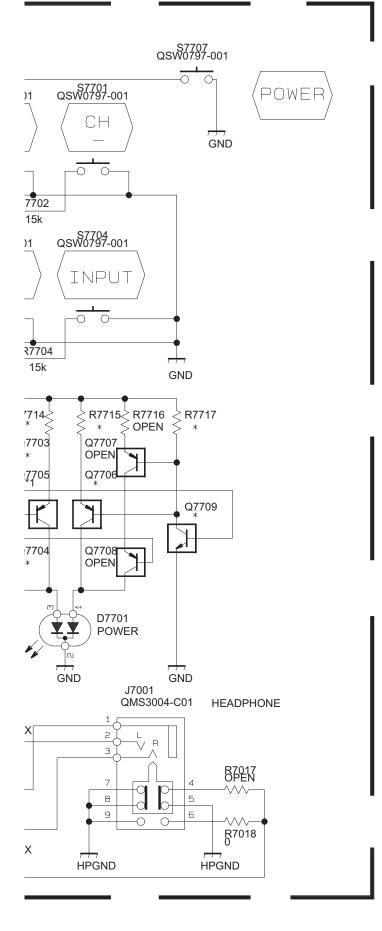








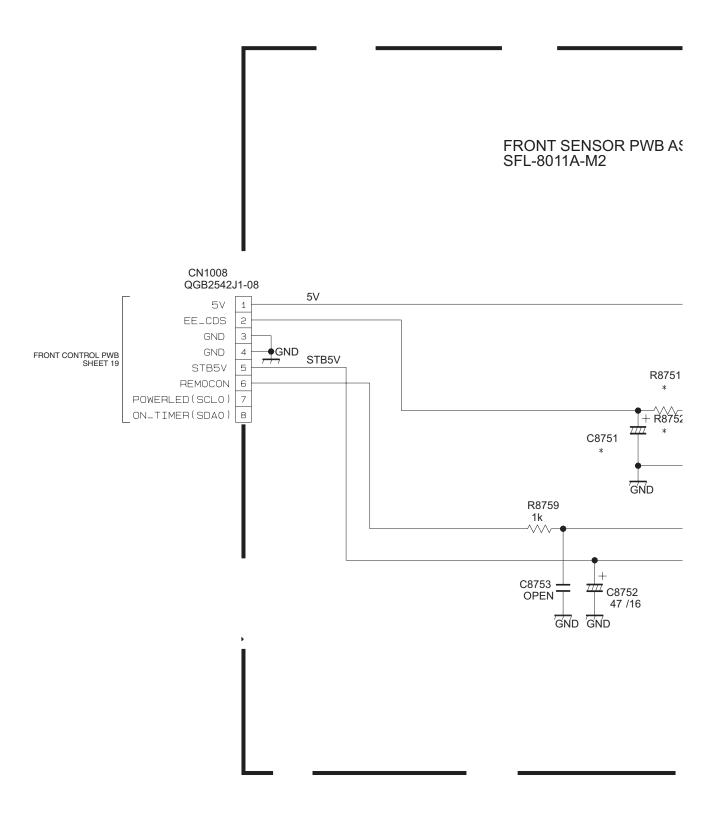


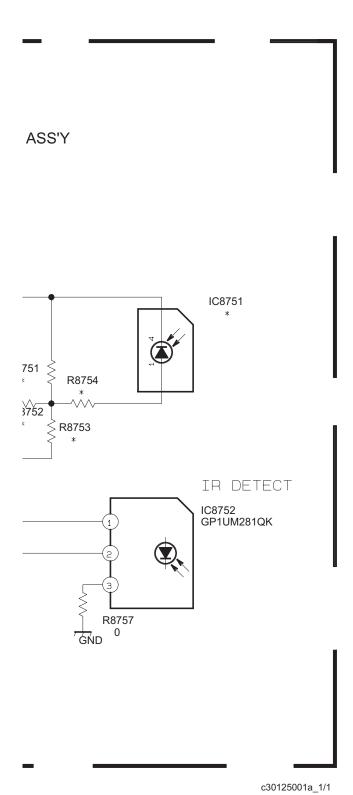


FRONT CONTROL PWB ASS'Y SFL-7011A-M2

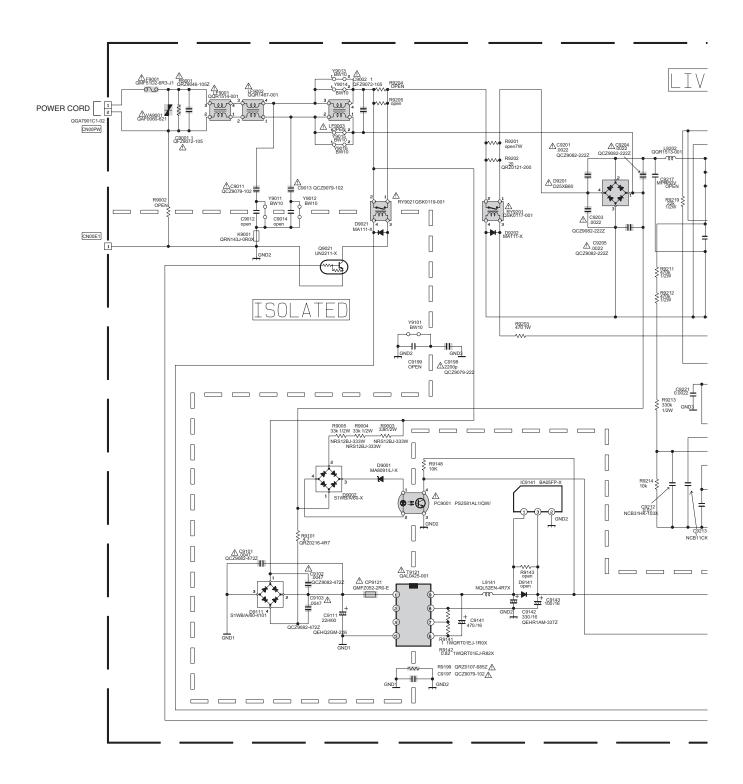
ASS' Y No.	LCA90351 -01*	LCA90351 -11*
	SFL-7002A	SFL-7011A
	OLLC06137	OLLC06375
D7701	SML1216W	OPEN
D7702	OPEN	HLMPNS30 J00-T16
Q7702	OPEN	UN2212-X
Q7703	OPEN	UN2110-X
Q7704	OPEN	UN2110-X
Q7706	UN2110-X	OPEN
Q7709	UN2212-X	OPEN
R7712	OPEN	10K
R7713	OPEN	330
R7714	1.5K	2.2K
R7715	1.5K	OPEN
R7717	10K	OPEN

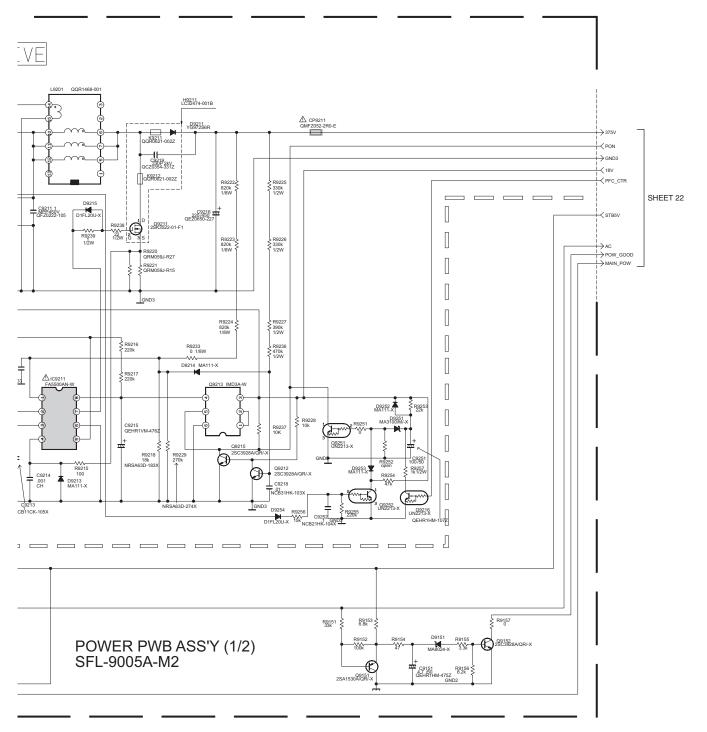
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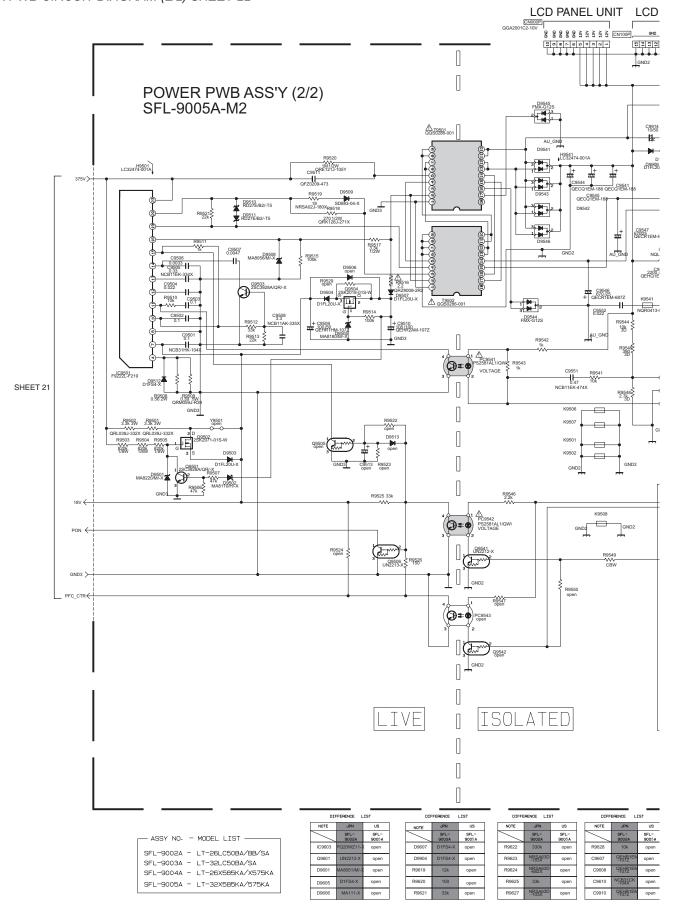


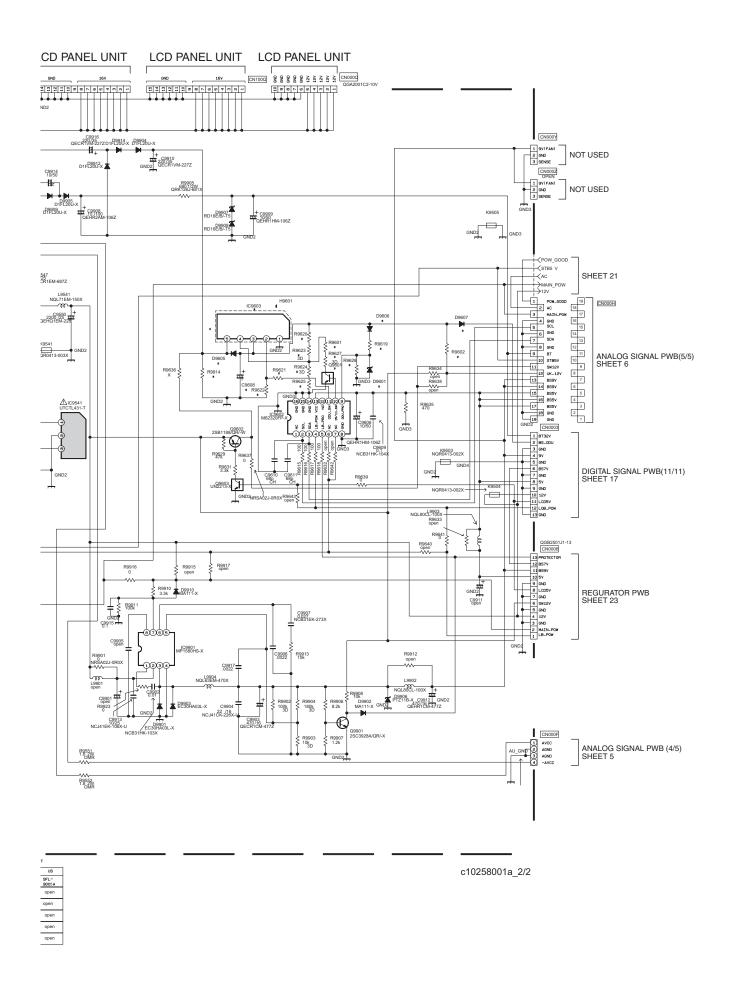
ASS' Y No.	LCA90352 -01*	LCA90352 -11*
	SFL-8002A	SFL-8011A
	OLLC06139	OLLC06377
IC8751	S9066-11	OPEN
R8751	270K	OPEN
R8752	100	OPEN
R8753	68K	OPEN
R8754	33K	OPEN
C8751	22/6.3	OPEN

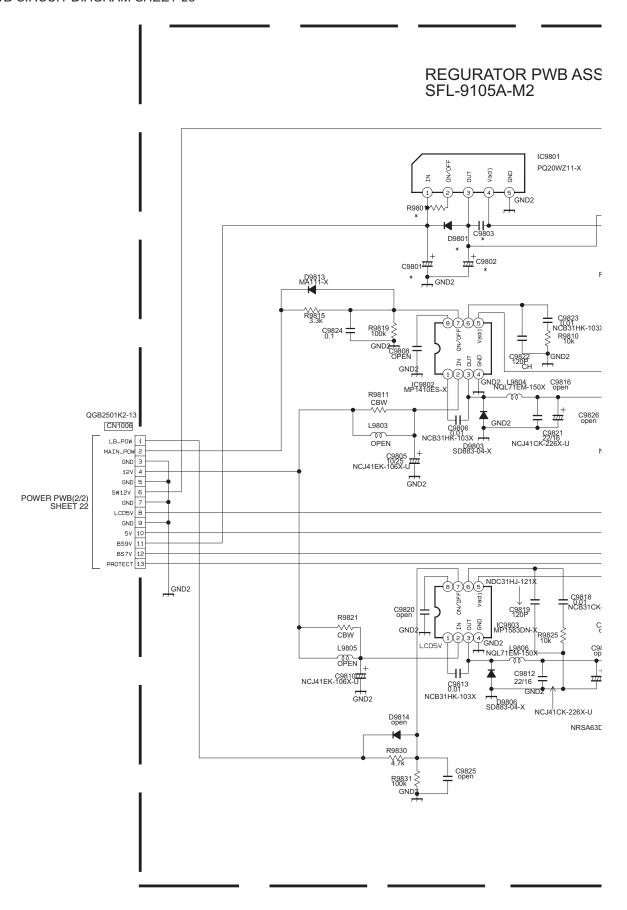




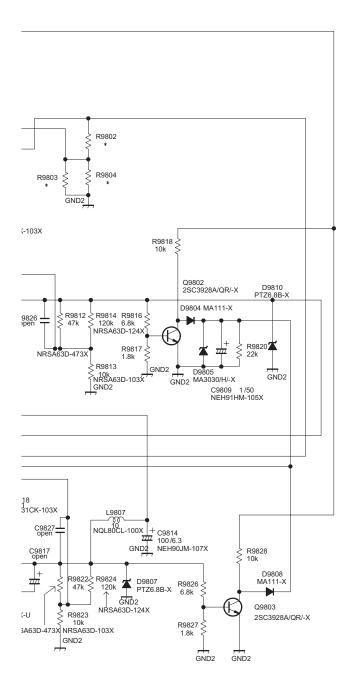
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SS'Y

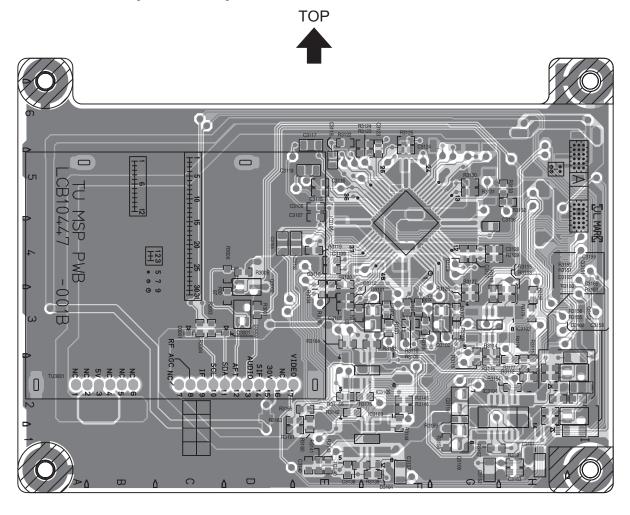


DIFF	ERENCE	LIST
NOTE	JPN	US
	SFL-9102A etc	SFL-9105A etc
IC9801	PQ20WZ11-	X open
D9801	D1FS4-X	open
R9801	10k	open
R9802	NRSA63D -472X	open
R9803	NRSA63J -183X	open
R9804	NRSA63D -332X	open
C9801	NEH91CM -476X	open
C9802	NEH91CM -476X	open
C9803	NCB31HK -104X	open

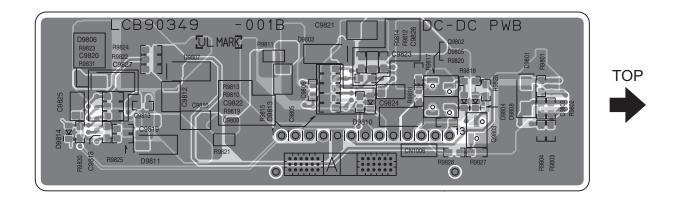
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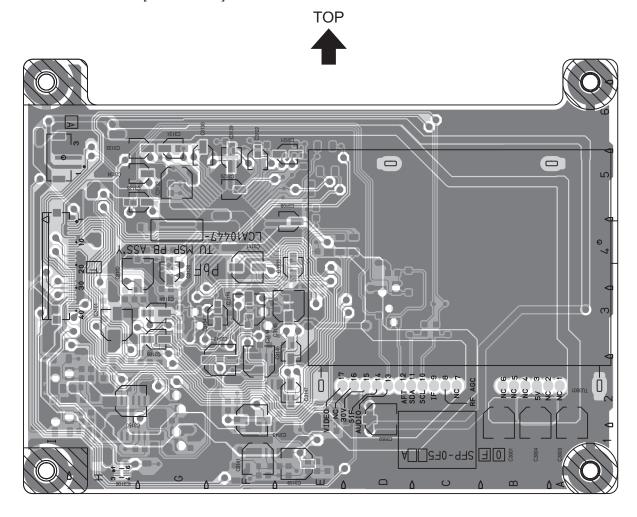
PATTERN DIAGRAMS

RECEIVER PWB PATTERN [SOLDER SIDE]

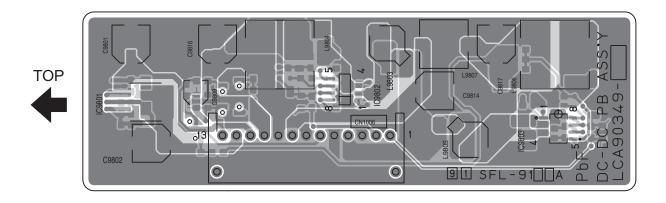


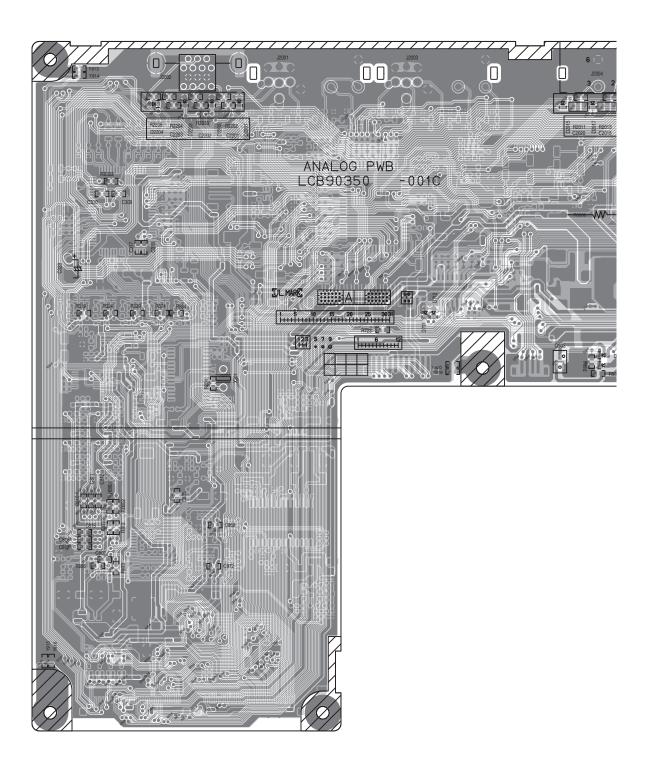
REGULATOR PWB PATTERN [SOLDER SIDE]



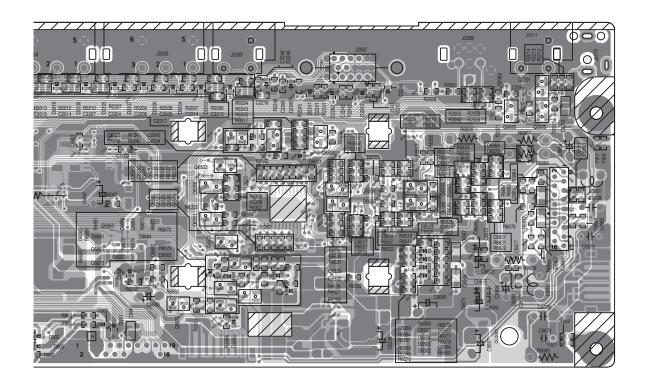


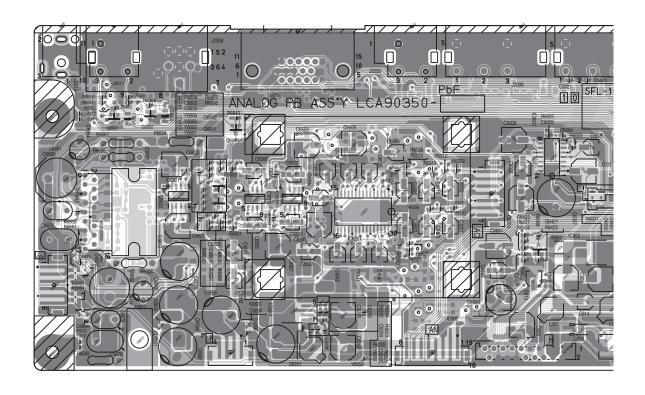
REGULATOR PWB PATTERN [PARTS SIDE]

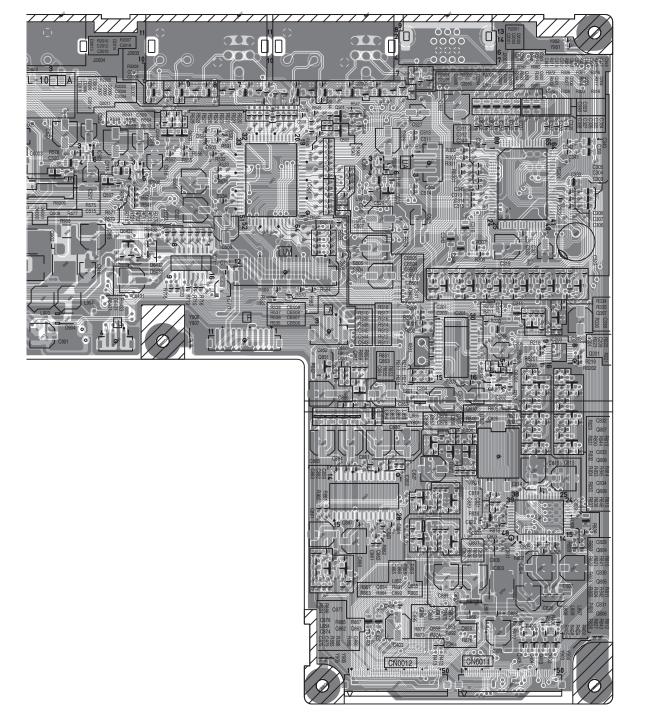




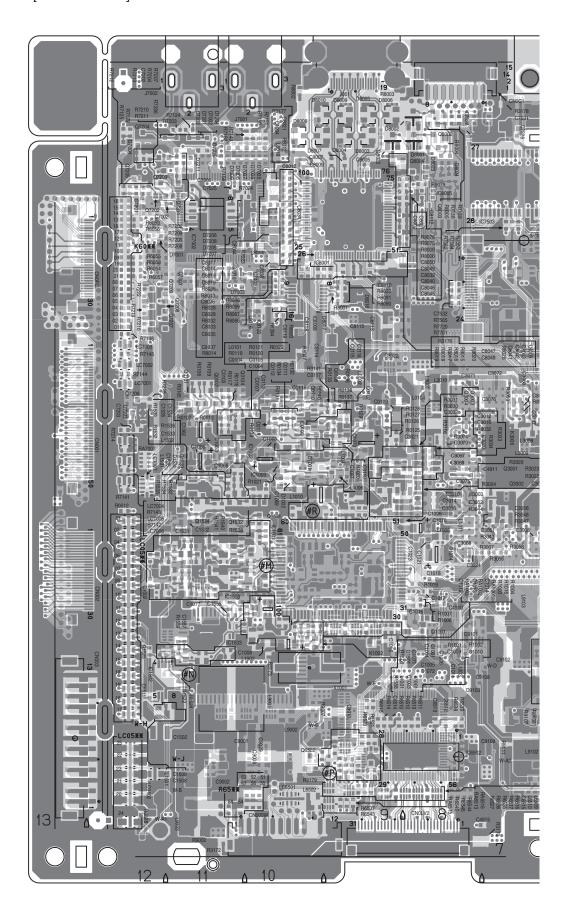




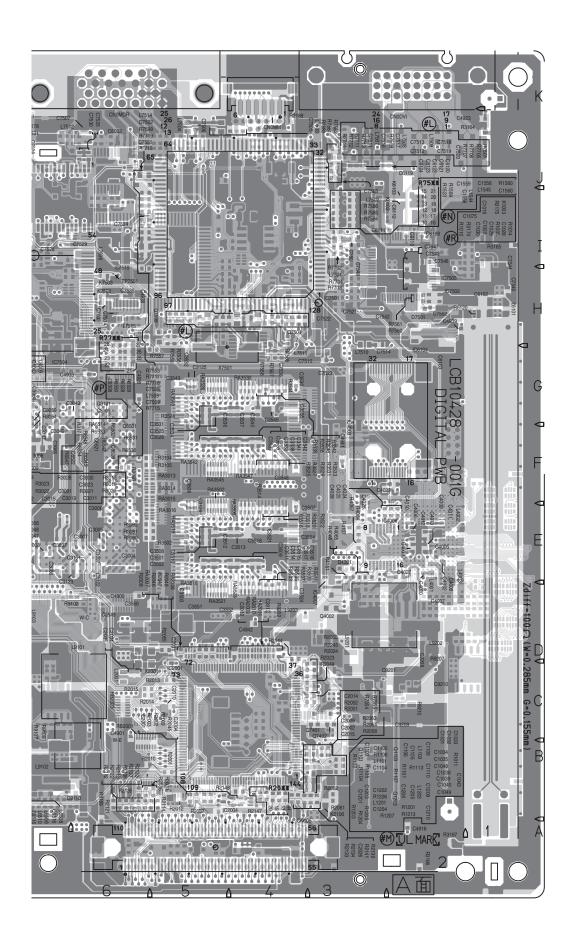


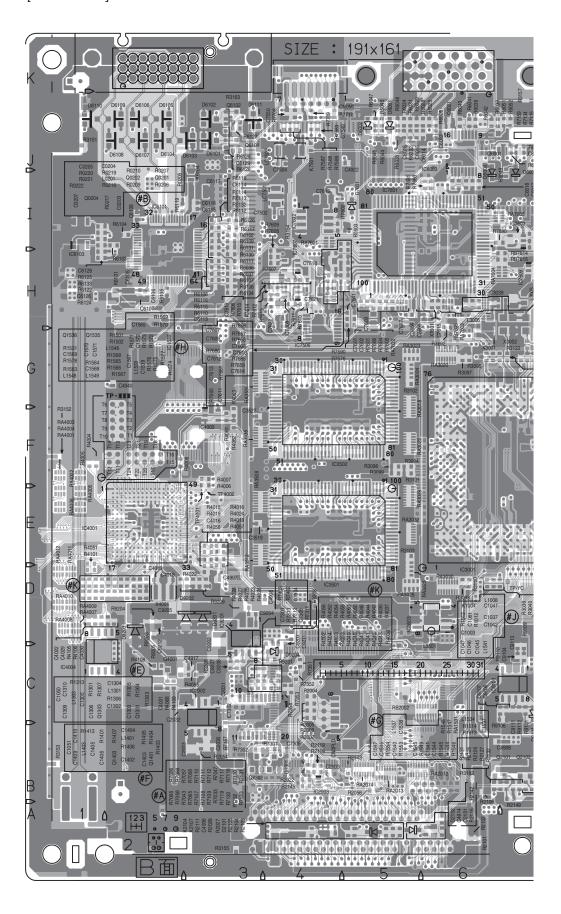


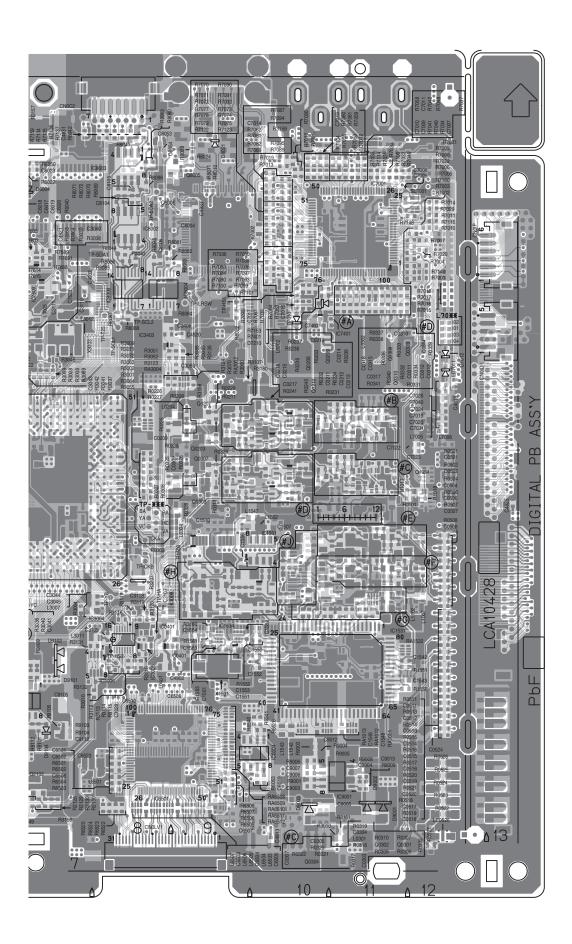




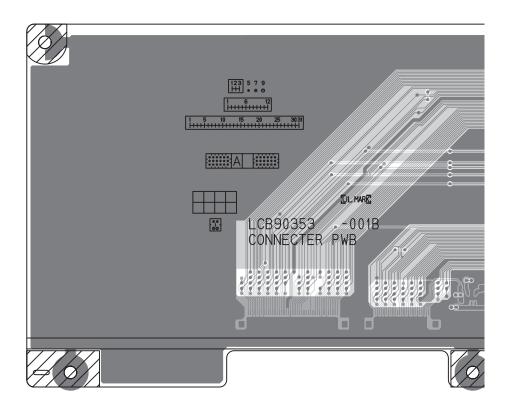




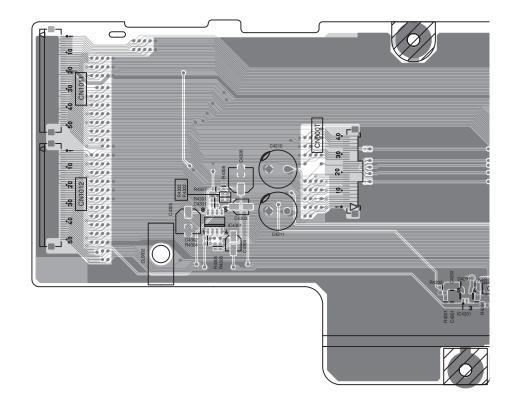




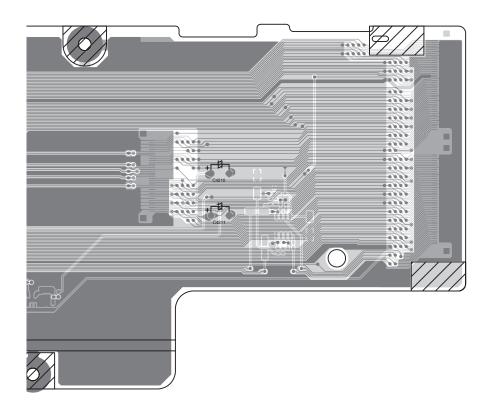


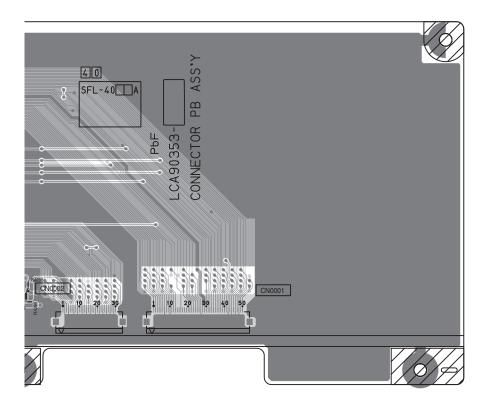


CONNECTOR PWB PATTERN [PARTS SIDE]

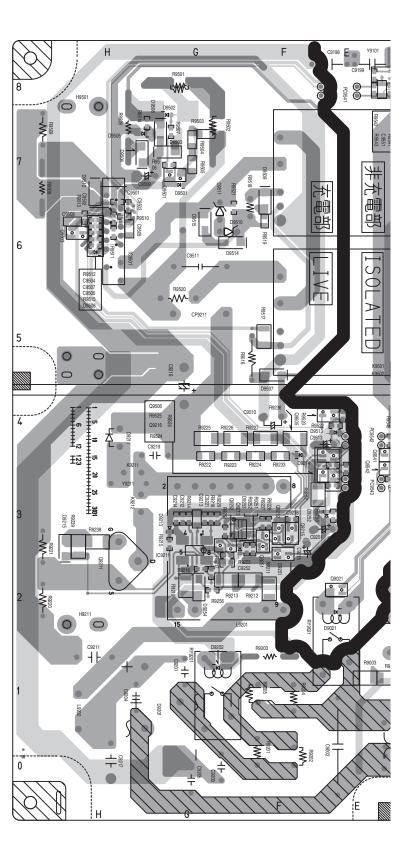






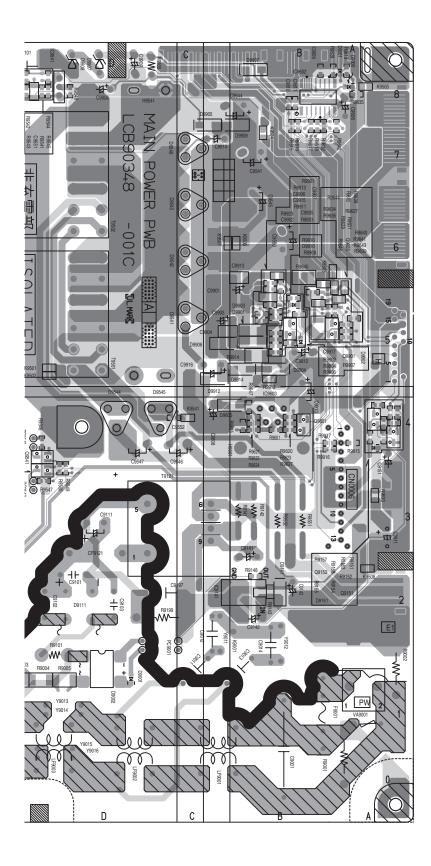


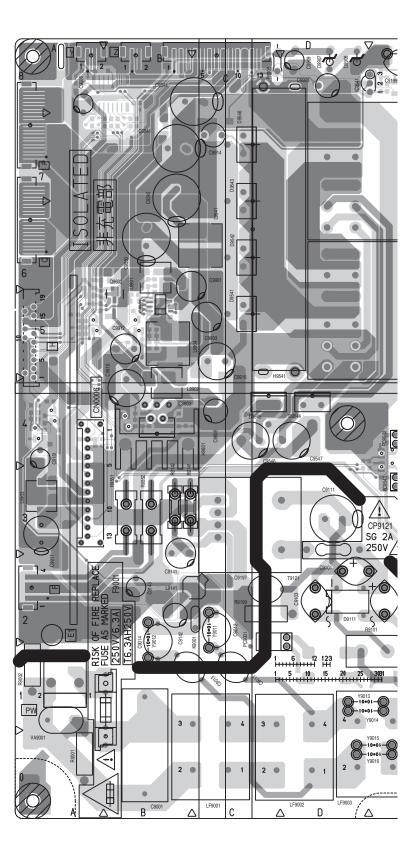
TOP





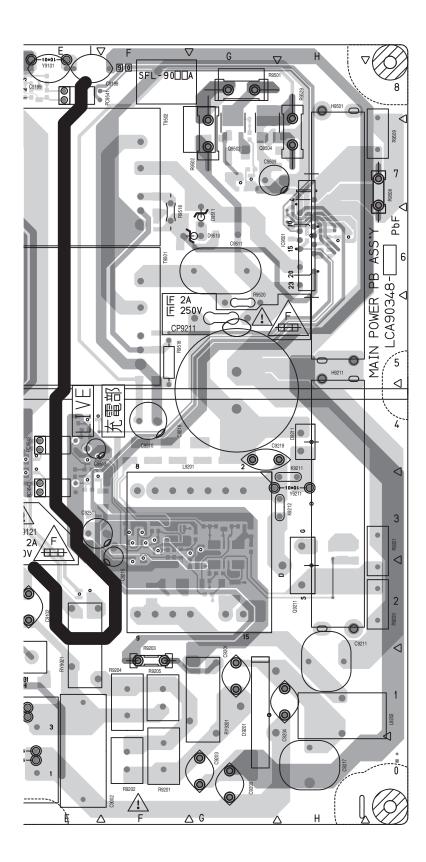




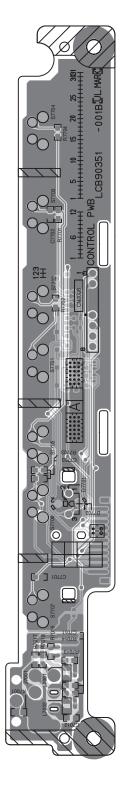




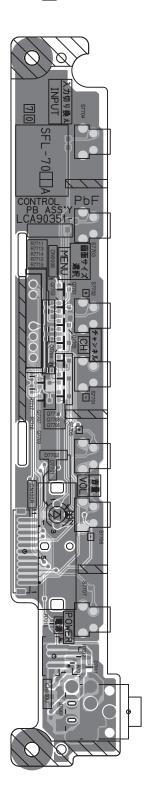


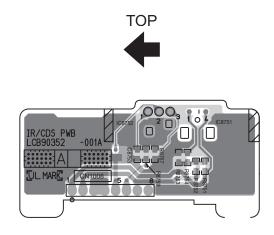




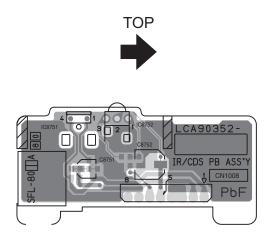








FRONT SENSOR PWB PATTERN [PARTS SIDE]

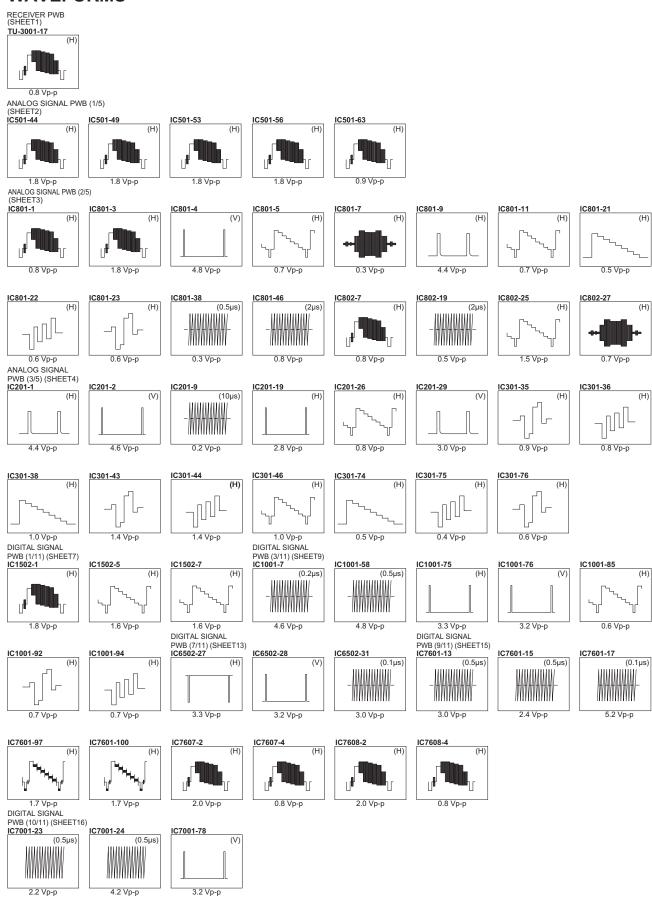


VOLTAGE CHARTS

_	AGE CH	IARTS									
PLEAT PLEA	CANALOG SIGNAL> P.2-9 - P.2-10	P.2-11 - P.2-12 MODE DC (V) PINNO. DC (V) C711 1 5.2 2 5.3 3 4.6 4 4.6 5 4.6 4 4.6 5 4.6 7 0.3 8 0 9 5.3 10 5.3 11 5.3 12 5.3 13 0 14 5.0 15 4.9 16 5.3 C801 1 2.3 2 1.9 3 1.4 4 0.2 5 2.3 13 0 4 5.0 16 5.3 C801 1 2.3 2 1.9 3 1.4 4 0.2 5 2.3 13 4.8 4 4.9 15 0 16 0 0 17 0 18 0 19 0 0 17 0 18 0 19 0 0 17 0 18 0 19 0 0 0 19 0 0 0 0 0 0 0 0 0	MODE DC (V) PIN NO. D 2.9 G 4.9 Q403 S 3.1 D 3.0 G 4.9 Q404 S 3.2 D 3.2 G 5.2 Q405 S 3.1 D 3.2 G 5.2 Q801 E 2.8 C 0 B 2.1 Q802 E 2.6 C 0 C 0 B 2.0 Q810 E 2.0 E 2.6 C 0 B 2.7 Q853 E 2.7 C 9.0 B 2.7 Q854 E 2.7 C 9.0 B 3.2 Q855 E 1.9 C 0 0 B 3.1 Q859 E 3.1 C 9.0 B 3.1 Q859 E 3.1 C 9.0 B 3.1 Q862 E 1.9 C 0 0 B 3.1 Q863 E 3.1 C 9.0 B 3.1 Q863 E 3.1 C 9.0 B 3.1 Q863 E 3.1 C 9.0 B 3.1 Q859 E 3.7 C 5.1 B 4.1 B 1.6 Q863 E 3.4 C 5.1 B 4.1	P.2-13 - P.2-14 MODE PINNO. DC (V) C201	MODE DC (V)	P.2-15 - P.2-16 MODE PIN NO. DC (V) IC6001	MODE DC (V) PIN NO.	P.2-21 - P.2-22 MODE PINNO, DC (V) ICO401	MODE DC (V) B 2.0 Q0308 E 1.8 C 9.1 B 2.4 Q0309 1 0 2 0.1 3 2.4 4 2.5 5 0.1 6 2.5 5 0.1 6 2.5 7 0.3 6 0.1 I 0 2 0 3 0.6 4 0.1 5 0.3 6 0.1 I 0 2 0 3 0.6 4 0.1 5 0.3 6 0.1 I 0 I 0 2 0 3 0.6 4 0.1 5 0.3 6 0.1 I 0	MODE DC (V) PINNO. DC (V) 73 0 0 74 2.3 75 0.2 76 0 0 77 1.6 78 1.5 79 0 80 1.1 81 0.9 82 1.7 83 1.3 84 0 85 1.1 86 0 87 0.8 88 0.8 89 1.7 90 1.2 91 2.5 92 1.1 100 1.5 92 1.1 100 1.5 0.1001 E 0.0	P.2-27 - P.2-28 PNONE PNONE DC (V)

1 201			[D 2 20 D 2 20]		[P.2-35 - P.2-36]			[P.2-39 - P.2-40]	<power> [P.2-47 - P.2-48]</power>	[P.2-49 - P.2-50]	
:-28] : (V)	MODE PIN NO. DC (V)	MODE PIN NO. DC (V)	MODE PIN NO. DC (V)	MODE PIN NO. DC (V)	MODE PIN NO. DC (V)	MODE PIN NO. DC (V)	MODE PIN NO. DC (V)	MODE PIN NO. DC (V)			
	60 1.2	56 0.4	IC4003	40 1.2	IC7601	97 0.6	59 0	IC9001	IC9141	IC9501	10 0
3.2	61 1.2 62 0	57 0.4 58 1.2	2 0	41 1.2 42 1.2	1 0.2 2 1.5	98 0 99 5.0	60 0	1 8.1 2 11.9	2 0	7 20.3	
0	63 1.2	59 2.5	3 0	43 0	3 0	100 2.0	62 0	3 3.3	3 5.0	8 0	<regulator></regulator>
3.3	64 1.2 65 2.4	60 1.2 61 1.2	5 0	44 3.3 45 1.1	5 0	1 0	63 0 64 0	4 0 5 1.2	1 2.5	10 4.9 11 1.1	MODE PIN NO. DC (V)
0	66 0 67 2.4	62 0 63 1.2	6 0 7 3.2	46 1.3 47 1.1	6 0 7 0	2 0 3 0	65 0 66 3.3	6 1.3 7 5.3	2 0 3 0.7	12 4.9 13 3.0	IC9801 1 9.1
0	68 1.2	64 1.2	8 3.3	48 1.3	8 0	4 0	67 0	8 0	4 0	14 0.8	2 6.0
0	69 1.2 70 0	65 2.5 66 0	9 0	49 0 50 0.7	9 0	5 3.2 6 3.2	68 3.2 69 3.2	1 7.3	5 2.6 6 0	15 5.0 16 1.3	3 7.1 4 2.6
0	71 1.2	67 2.4	11 0	51 0.9	11 0	7 0	70 3.2	2 11.8	7 13.1	19 256.5	5 0
0	72 1.2 73 2.4	68 1.2 69 1.2	12 0 13 0	52 0.8 53 0	12 3.2 13 1.7	8 3.2 IC7603	71 3.2 72 0	3 2.4 4 0	8 20.2 Q9021	20 255.3 23 378.2	1 10.0
0	74 1.2 75 1.2	70 0 71 1.2	14 0 15 0	54 0.4 55 0.4	14 0 15 1.5	1 0	73 3.2 74 3.2	5 1.2 6 1.4	E 0 C 0.1	1 2.4	2 11.9 3 5.2
5.3	76 0	72 1.2	16 0	56 0.7	16 0	3 0	75 3.2	7 5.3	B 3.1	2 0	4 0
0	77 1.2 78 1.2	73 2.4 74 1.2	17 0 18 0	Q6501 E 0	17 0 18 1.4	4 3.2 5 3.3	76 3.2 77 3.4	8 0 IC9201	Q9151 E 1.1	3 9.0 IC9602	5 1.2 6 1.2
0	79 2.5 80 1.2	75 1.2 76 0	19 0 20 0	C 4.7 B 0	19 3.2 20 0	1 2.0	78 0 79 3.3	1 6.4 2 11.8	C 0 B 1.1	1 0 2 4.9	7 3.1 8 0
0	81 1.2	77 1.2	21 0.3	CN000W	21 0	2 2.0	80 0	3 1.5	Q9152	3 4.9	IC9803
3.3	82 0 83 1.2	78 1.2 79 2.5	22 0.5 23 0.4	1 2.9 2 3.3	22 0	3 5.2 4 1.7	81 0 82 3.2	4 0 5 1.2	E 0 C 3.1	5 0 5.3	1 9.6 2 11.9
0.2	84 1.2 85 0	80 1.2 81 1.2	24 0 25 0.5	3 0 4 0	24 0 25 0	5 0 6 5.3	83 3.2 84 3.2	6 1.3 7 5.1	B 0 Q9211	6 5.3 7 0	3 5.2 4 0
0	86 0	82 0	26 0.5	5 3.0	26 0	IC7608	85 3.2	8 0	S 0	8 0	5 1.2
0	87 0 88 0	83 1.2 84 1.2	27 0.5 28 0.5	6 3.0 7 3.0	27 0	2 2.0	86 3.2 87 3.2		D 87.8 G 13.1	9 0	6 1.5 7 5.1
0	89 0 90 0	85 0	29 0.4 30 3.3	8 4.5 9 4.9	29 0 30 3.2	3 5.3 4 1.7	88 0 89 0	<connector> [P.2-41 - P.2-42]</connector>	Q9212 E 0	11 0 12 0	8 1.6 Q9802
3.3	91 0	87 0	31 0	10 0	31 0	5 0	90 2.8	MODE PIN NO. DC (V)	C 10.2	13 5.3	E 0
0	92 0	88 0 89 0	32 3.3 IC4004	11 0.2 12 0	32 0 33 0	6 5.3	91 0 92 0	1 0.6	B 0 Q9213	14 0 15 0	C 0 B 0.6
3.3	94 1.2	90 0	1 0	CN0LV2	34 0		93 3.2	2 0.6	1 20.2	16 0	Q9803
3.3	95 2.4 96 0	91 0 92 0	3 0	1 0	35 3.2 36 3.2	[P.2-37 - P.2-38] MODE DC (V)	94 0 95 3.2	3 0 4 0.2	3 0	1 13.4	E 0
1.2	97 1.2 98 1.2	93 0 94 1.2	4 0 5 3.3	3 1.3 4 1.1	37 0 38 3.2	IC7001	96 3.2 97 0	5 3.3	5 0	2 11.9 3 9.1	B 0.6
2.4	99 0	95 2.5	6 3.2	5 0	39 0	1 3.2	98 0	<front control=""></front>	6 20.2	4 0	
1.2	100 1.2 IC3502	96 2.5 97 1.2	7 0 8 3.3	6 0 7 1.3	40 0 41 3.1	3 0	99 3.2 100 2.4	[P.2-43 - P.2-44] MODE DC (V)	Q9251 E 0	5 1.2 6 1.2	
1.2	1 1.2	98 1.2 99 0	1C4005 1 2.7	8 0.1 9 0	42 0 43 0	4 2.8 5 0	1 0	Q7701	C 10.2 B 0.5	7 3.1 8 0	
1.2	3 1.2	100 0	2 1.4	10 0	44 0	6 0	2 0	E 0	Q9252	Q9501	
1.2	4 1.2 5 0	1 0	3 0 4 -1.0	11 1.2 12 1.2	45 0 46 0	7 3.1 8 0	3 0 4 0	C 0 B 3.2	E 0	E 0	
1.2	6 1.2 7 1.2	2 2.4 3 1.2	5 3.3 Q4001	13 0 14 0	47 0 48 3.2	9 0	5 3.2 6 3.2	Q7702 E 0	B 10.7	B 0.6 Q9502	
1.2	8 2.4	4 1.2	E 0	15 1.2	49 3.2	11 3.2	7 0	C 0		S 0	
2.4	9 1.2	5 2.5 6 2.4	B 0.6	16 1.3 17 0	50 0	12 3.2 13 3.2	8 3.2 IC7401	B 2.9 Q7703		D 0.4 G 378.2	
2.4	11 0 12 1.2	7 2.5 8 1.2		18 0 19 1.2	52 0 53 0	14 0 15 3.2	1 3.2 2 3.2	E 3.2 C 3.1		Q9503 E 0	
1.2	13 1.2	Q3001	[P.2-31 - P.2-32]	20 1.2	54 0	16 0	3 0	B 0		C 0	
1.2	14 2.4 15 2.4	E 2.2 C 3.3	MODE PIN NO. DC (V)	21 0	55 0 56 0	17 3.2 18 0	4 0 Q7206	Q7704 E 3.0		B 0.6 Q9504	
1.2	16 0 17 1.2	B 2.8 Q3002	IC6502 1 3.3	23 0 24 3.3	57 0 58 0	19 0 20 3.2	E 0 C 2.0	C 2.9 B 0		S 22.6 D 20.9	
2.5	18 1.2	E 2.9	2 0.8	25 3.3	59 0	21 3.2	B 1.0	Q7705		G 39.8	
0.4	19 0 20 1.2	C 0 B 2.2	3 1.4 4 0	26 0 27 4.9	60 0	22 3.2 23 1.5	Q7207 E 3.2	E 3.0 C 2.9		Q9541 E 0	
1.7	21 1.2 22 2.5	Q3003 E 0.7	5 0 6 0.3	28 4.9 29 4.9	62 3.2 63 0	24 1.4 25 3.2	C 3.2 B 0	B 0		C 0 B 3.2	
1.7	23 0.4	C 3.3	7 0	30 4.9	64 3.3	26 0	<u> </u>	<front sensor=""></front>		Q9602	
0.7	24 0.4 25 1.7	B 1.4 Q3004	9 3.2	31 3.3	65 0 66 0	27 0 28 0		[P.2-45 - P.2-46] MODE DC (V)		E 11.2 C 11.8	
0.7	26 1.7 27 1.7	E 1.4 C 0	10 0.9 11 0		67 0 68 0	29 0 30 3.2		PIN NO. DC (V)		B 11.9 Q9603	
0.7	28 0	B 0.7	12 0.3	[P.2-33 - P.2-34] MODE DC (V)	69 0	31 0		1 3.7		E 0	
0.7	29 0.7 30 0.6		13 0 14 1.5	IC6104	70 0	32 0 33 0		3 0		C 0 B 5.2	
2.4 0.7	31 0.7 32 0.7		15 1.1 16 0	1 3.3	72 0 73 0	34 3.2 35 0				Q9901 E 0	
0	33 0.7		17 0	3 0	74 0	36 3.1				C 0	
0	34 0.7 35 2.4		18 0.6 19 0.7	4 3.3 5 2.5	75 0 76 0	37 0 38 3.2				B 0.6 CN000P	
0	36 0.7 37 0		20 0.8 21 0		77 0 78 0	39 0 40 3.2				1 12.0 2 12.0	
0	38 0		22 0.4		79 0	41 0				3 12.0	
0	39 0 40 0		23 0.4		80 0	42 3.2 43 0				4 12.0 5 12.0	
0.7	41 0 42 0		25 1.6		82 0 83 0	44 0				6 0	
0.7	43 0		26 3.2 27 3.3		84 2.7	46 0				8 0	
0.7	44 0 45 0.7		28 0 29 0		85 0 86 3.2	47 0 48 3.2				9 0	
0.7	46 0		30 2.7		87 3.2	49 0				CN000Q	
0.7	47 0.7 48 0.7		31 1.2 32 3.3		88 3.2 89 0	50 2.0 51 3.2				1 12.0 2 12.0	
1.7	49 0.7 50 0.7		33 0 34 0		90 0 91 0	52 0 53 3.2				3 12.0 4 12.0	
1.2	51 0.7		35 0		92 0	54 3.2				5 12.0	
0.4	52 0 53 1.7		36 0 37 1.1		93 3.2 94 3.2	55 3.2 56 3.2				6 0 7 0	
2.5	54 1.3 55 1.2		38 1.3 39 1.2		95 0 96 0.1	57 3.2 58 3.2				8 0 9 0	
	1.6		1.2		23 0.1						

WAVEFORMS



CHANNEL CHART (US)

МО	DE		CHAI	TUNER	
TV	CATV	BAND	REAL	DISP.	BAND
_	_	VL	0 0	2 3 4 5 6	I
		VH	0 0 0 1 1 1	7 8 9 0	П
			A B	14 15	I
		MID	C D E F G H	16 17 18 19 20 21	
		SUPER	J K L M N O P Q R S T U V W	23 24 25 26 27 28 29 30 31 32 33 34 35 36	П
×	0		W+1 W+2 W+3 W+4 W+5 W+6 W+7 W+8 W+9 W+10 W+11	37 38 39 40 41 42 43 44 45 46 47	
		HYPER	W+12 W+13 W+14 W+15 W+16 W+17 W+18 W+19 W+20 W+21 W+22 W+23 W+24 W+25 W+25 W+27 W+28	48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	IV
		ULTRA	W+29 W+30 W+31 W+32 W+33 W+34	65 66 67 68 69 70	

МО	MODE CHANNEL TUN					
TV	CATV	BAND	REAL	DISP.	BAND	
×		ULTRA	W+35 W+36 W+37 W+38 W+39 W+40 W+41 W+42 W+43 W+44 W+45 W+46 W+47 W+48 W+49 W+50 W+51 W+52 W+53 W+54 W+55 W+56 W+57 W+58 W+59 W+60 W+61 W+62 W+63 W+64 W+65 W+67 W+68 W+69 W+70 W+71 W+72 W+73 W+74 W+75 W+78 W+79 W+80 W+81 W+82 W+83 W+84	71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125	IV	
		SUB MID	A-8 A-4 A-3 A-2 A-1	01 96 97 98 99	I	
0	×	UHF		4) 9	IV	
			0CH 124CH 56CH			
P C	O RECEI ROGRAM ABLE COI	VE THE SI MING FROM MPANIES. DAPTERS M	1 CERTAIN		PREMIUM	

CHANNEL CHART (CA)

МО	DE	BAND	CHAI	NNEL	TUNER
TV	CATV	BAND	REAL	DISP.	BAND
		VL	0 0 0	3 4 5 6	I
0		VH	0 0 1 1 1	7 8 9 0 1 2 3	
		MID	A B C D E F G H I	14 15 16 17 18 19 20 21	п
			J K L M N	23 24 25 26 27 28	
		SUPER	P Q R S T U V W	29 30 31 32 33 34 35 36	
×	0	HYPER	W+1 W+2 W+3 W+4 W+5 W+6 W+7 W+8 W+9 W+10 W+11 W+12 W+13 W+14 W+15 W+16 W+17 W+18 W+20 W+21 W+22 W+23 W+24 W+25 W+26 W+27 W+28	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	Ш
		ULTRA	W+29 W+30 W+31 W+32 W+33 W+34	65 66 67 68 69 70	IV

MO		BAND	CHAI	CHANNEL			
TV	CATV	שבואט	REAL	DISP.	BAND		
×		ULTRA	W+35 W+36 W+37 W+38 W+39 W+40 W+41 W+42 W+43 W+45 W+46 W+47 W+48 W+49 W+50 W+51 W+52 W+53 W+54 W+55 W+56 W+57 W+58 W+55 W+60 W+61 W+62 W+63 W+64 W+65 W+67 W+68 W+69 W+70 W+71 W+72 W+73 W+74 W+75 W+78 W+79 W+80 W+81 W+82 W+83 W+84	71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125	IV		
		SUB	A-8 A-4	01 96	I		
		MID	A-3 A-2 A-1	97 98 99	П		
0	X	UHF	6	4) 9	IV		
NOTE T	: O RECEIV	TOTAL 18	0CH 124CH 56CH UBSCRIPTI	9			